CIVILIZATION *and* ART SERIES

PREHISTORIC MAN
and
THE ANCIENT WORLD

VOLUME I

EDITOR-IN-CHIEF

BROWN LANDONE

INTRODUCTION BY

W. L. HUBBARD

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Contents

The Man 1
The Work 8
Words and Phrases..... 17
A Beginning 37
Prehistoric Man 42
Primitive Decoration 73
The Beginnings of the Potter's Art..... 96
Written Language 104
Egypt 110
Prehistoric Egypt 113
Historic Egypt 120
The Old Empire.....122
The Middle Empire.....141
The New Empire.....148
Babylonia, Assyria 172
Persia 221
The Hebrews 238
Phœnicia 244

The Man

W. L. Hubbard.

NO better or happier choice for an Editor-in-Chief of Civilization — An Appreciation of the Victories of Scholarship, Science and Art, could have been made than the selection of Mr. Brown Landone. His experience, his education, his natural bent and even his ancestry peculiarly fit him for the filling of such a position.

A descendant of an ancient Italian-French family, one of whose members was Pope in the Tenth century, while others became celebrated as architects, painters and art authorities, one having designed and constructed the Hotel Dieu and Theatre Beauvais, another having been the Conservator of the Paintings of the Louvre, Mr. Brown Landone certainly comes ancestrally qualified for authoritative utterance concerning art matters and art works.

His education also has peculiarly equipped him for this office. A child physically delicate, all his instruction was received from private tutors who

accompanied him and his father on constant journeying to all parts of the world. With maturity came gain in physical health and then commenced not only serious scientific study along physiological lines but also the earnest investigation of sociological conditions and the endeavor to discover and formulate laws governing those conditions.

This investigation led Mr. Brown Landone to all the great cities of Europe and America. Thus, not only his early education, but his later wandering and observations tended to produce a breadth of view and catholicity of judgment which made all race and class prejudices impossible. Early in his studies Mr. Brown Landone came in contact with eminent evolutionists and psychologists, and his mind was led to search for the scientific processes by which all phases of Man's development have taken place.

His psychological work differs from that of the university professors, while he is appreciative of what they have done and grateful for the bases they have laid. For thirty years the university men have been investigating and testing the ways in which the mind acts, the effect the mind has on the body and the way in which the activities of the body react upon and influence the activities of the mind.

Mr. Brown Landone's special work has been the application of the laws discovered by the

university men. He has shown how these laws may be applied so as to aid the individual. And while concerned with this individual problem, he studied racial and national problems. He spent considerable time investigating the causes of the deterioration in the physique of the English workingman and in France aided in the propaganda for a finer and higher type of physical manhood.

Lieutenant Nicholas Benoit, then of the Ministry of Marine of France, the organizer of the French Boy Scout movement, gives credit for his inspiration in accomplishing this work to the several years' correspondence and personal acquaintance with Mr. Brown Landone; and in 1912, at a review of the French Boy Scouts in one of the historic forests near Paris, he referred to Mr. Brown Landone as the "God-father of the Boy Scouts of France."

In government, he holds, that while the legislative and judicial officials should be made more responsive to the aspiration, intention and will of the people, the executives in republics should be given greater power and longer terms of office.

Mr. Brown Landone's study of governmental and industrial conditions forced him to believe the greatest need of the present age to be the discovery, selection and training of industrial and political leaders. This led naturally to a deep and just appreciation of the service big industrialists

have rendered our present society. His ideas on industrial and political leadership and his belief that the necessity of conserving potential leaders is the only means of perpetuating democracy, induced a department of the University of Paris to invite him in 1913 to speak at the Sorbonne upon this subject.

Because of his conviction of the necessity of wisely choosing leaders and because of his faith in democracy both in government and industry, he was led to learn of the conditions and needs of the masses by working among them at various times, not as a student from the outside looking on at their life but as a worker participating in their labors and their struggles. And in this way be became convinced that the benefits gained for the masses and the mistakes made by them were due respectively to wise or unwise leadership.

The relation of poverty to crime naturally impressed itself upon his attention, and he spent some years in demonstrating that criminal conditions could be remedied most readily and society best protected by centering one's reform efforts upon the head or leader of the criminal or near-criminal organization; for as soon as the leader came to live a better life, the organization under him broke up and a large percentage of his under-men followed in his footsteps. In this work Mr. Brown Landone's efforts have been directed mainly to men who have not been detected, and in this way he

saved them from being stamped through life as former convicts.

Out of this extensive experience, the study of racial conditions, of industrial conditions, of political conditions; out of his work for the betterment of the individual, both normal and abnormal; out of his study of the steps by which man has evolved in the past and the means by which he is developing at present, there came a recognition of the simple, basic laws back of all evolution.

And this convinced him that there were basic laws back of all development, even in literature and art. He therefore took art in its five great divisions—architecture, painting, literature, sculpture and music — and sought for underlying and controlling laws. In this search for the basic principles of the science that unifies all arts, he devoted long study to the works in the New Museum and the National Gallery, of Berlin; to the masterpieces found in the Museum of Munich; to the works of the museums of Vienna; of the Louvre, the Pantheon, the Luxembourg and the Grand Palais of Paris; to the treasures of Florence, Venice and Rome; and to the art of the Museo del Prado of Madrid and the British Museum and the National Art Gallery of London.

After years of study he became convinced that in art, as in all other sciences, the laws are very simple,— that if followed either consciously or

unconsciously, masterpieces were produced; and if ignored, no matter by how great a genius, failures resulted.

He was able to determine why certain works of art which come near being masterpieces are not masterpieces. Even a genius, inspired by a great ideal, aided by definite technique, fails of producing a masterpiece if he violates but one great law.

Having thus discovered the underlying principles and having tested his discoveries by applying the principles to countless art creations in each of the five fine arts, Mr. Brown Landone sought to interest and convince others. One of his earnest desires was to aid in some way the thousands of students of art in Munich, Florence and Paris who, groping blindly in their study and its application, encountered either abject failure or half-way success. The process of interesting and convincing others was slow and difficult, but ultimately a series of lectures was delivered before noted audiences in Paris, London and Rome, the results being the enthusiastic formation of an International Institute of the Science of the Arts. Associate Institutes were to be established in Vienna, Munich, Rome, London and New York, but the war interrupted for the time the proposed establishment of associate branches.

It was because of Mr. Landone's being in the United States that it was possible to secure him

for the editing of Civilization—An Appreciation. The volumes will be prepared in such manner that they will cover not only a review of the steps in the progress of man and the great creations of the art world, but will also make clear to the reader and student the simple and basic underlying principles which govern and unify all the arts and the life of which they are the symbols. That Mr. Brown Landone is to have charge of the entire work assures the thoroughness, the accuracy and the authoritativeness with which the work will be carried out.

The Work

Brown Landone.

APPRECIATION is a God-like quality and enduring gratitude a most exalted attribute of man.

It is a basic truth that nothing so ennobles a man as thankful recognition of the services rendered him by his fellows. Nothing adds so much to the dignity and honor of a nation as grateful acknowledgment and appreciation of the sources of its life and culture. But it is not enough that a few members of the society of a nation should be grateful. True appreciation, to be enduring and to be ennobling to a nation, must be widespread.

Our professors who have studied municipal and civic problems, criminology, law, science and philosophy in England, France, Germany and Italy have returned to us fully appreciative of that which Europe taught them. Our young men and young women who have studied music, painting and sculpture in the old world have returned inspired by European ideals and attainments. Our school children and our college students who have been taught

here at home the beauties and ideals of European literature, have learned to value the exquisite style of the English, the delicate versatility of the French, the solid forcefulness of the German, and the musical beauty of the Italian.

And we who have traveled abroad or we who have been thrown in direct contact with European industries have learned to value the genius of their organization, the art quality of their products, and the efficiency of their methods; and the great mass of people who have not traveled have heard from the lips of their parents or have learned from history, to value the life, the development and the attainments of all European nations.

Because of this contact with the industry, the literature, the science, the art, the thought and the culture of Europe we have known of that which European civilization has given us; and because of our reading of history, we have learned of that which the European peoples guarded and carried over to us from the culture of Egypt, Phœnicia, Greece and Rome. Yet as a nation we have not fully appreciated either the immensity or value of this inheritance. For, "who can measure what America owes to Europe?" writes Dr. Edmund James, President of the University of Illinois, "as a matter of fact we owe nearly every element of our civilization and culture. The contributions we have thus far made to civilization are, of course,

comparatively few. Everything else and the initiation of most of what we have done, we owe to Europe."

Conscious of our virility, conscious of our magnificent material success and glorying in our development of machinery and invention, we, as a people, have been slow to recognize the great debt we owe to our European forefathers. Even as the young man, conscious of his own strength, often goes out into the world unappreciative of the home training and culture, so we, our fathers and our forefathers, came out of the European home lands not fully appreciative of the cultural inheritance they gave us. And as the young man later in life often comes to realize the value of that early influence, so we are beginning to understand the extent to which our national culture has been enriched by European life and thought. Thus we are nearing the hour of appreciation.

Then came the great struggle. Our national consciousness was fed by letter, cable, wireless and press report with messages of destruction, devastation and death. We talked of little else, we thought of little else. Our minds soon became dulled by the multitudinous reports of wholesale suffering, and at the same time our hearts became less appreciative of the inspiration of the past.

And this change was wrought in a few months. It was wrought in our adult minds, and the

adult mind is less easily impressed, less easily changed than the mind of the child or the mind of the adolescent. It was wrought in adult minds that had been trained during all the impressionable years of childhood to appreciate and to value the life and the culture of the peoples of Europe.

If we, the adult class, have been forced to think more and more of the struggle and waste of Europe and less and less of its culture and ideals, if we are beginning a new epoch in the history of the world with less appreciation than we have had in the past, what can we expect of our children? What about the impressionable minds of our boys and girls, young men and young women whose primal conceptions of Europe are now made up of vivid impressions of devastation and horror?

Unless something is done to counteract the impressions with which their minds are saturated they will grow to manhood and womanhood without even the opportunity, we as children had, of forming a just and true appreciation of the real Europe to which we owe so much.

The remedial work cannot be left to the schools alone, for in our schools the teaching of history is largely a teaching of war and its conquests. The new work must be done in the home. Every father and mother must do something to obliterate, something to counteract, the detrimental impressions lately engraved on the minds of our children.

The demand is growing, awakening in the hearts of fathers and mothers, for a teaching of the past that shall emphasize the life, the ideals and the attainments that have been and should continue to be our inspiration.

Due appreciation of the sources of that which we have inherited should be given not only because of the justness of the debt we owe, but because we ourselves, our people and our nation, will benefit. And in turning the thoughts of our people as a whole, and especially the thoughts of our boys and girls, young men and young women, to an impersonal appreciation of that which our people owe to the motherlands and fatherlands from which we sprang, we can develop a national habit which by its reaction will awaken greater personal appreciation.

And at this time the thoughts of strife and horror so vividly impressed, almost indelibly stamped upon the minds of our children and in the souls of our adolescent boys and girls, will be counteracted and replaced by something that is constructively noble and true.

THE desire to bring to our children and to ourselves a vivid recognition of the fact that there is another Europe other than that of which we have lately read, inspires and justifies the issuing of these volumes.

It is with the hope and faith that some concrete and just appreciation of that which Europe has given us and of that which Europe has transferred to us from the earlier civilizations of Greece and Rome, can be put into permanent form, so that it can be of value to ourselves and to our children, that I have agreed to undertake the editing of these volumes in which little attention is given to war struggles and their attendant horrors, but in which is recorded a just appreciation of all that is good, enduring and inspiring in civilization.

AS Editor-in-Chief, feeling this debt deeply, and endeavoring to bring about a permanent expression of our gratitude, I turned to others, seeking their aid. I was not disappointed. Many, each a leader in his own line of thought, not only expressed a desire to help but offered to aid in the compilation and formation of this appreciation.

Lack of space compels me, against my desire, to limit these appreciative contributions to those of Lorado Taft, teacher, inspirer, sculptor, connected for thirty years with the Art Institute of Chicago, member of the Extension Department of the University of Chicago, as well as of the National Institute of Arts and Letters, the National Sculpture Society, and many kindred organizations, who tells us with authority of present conditions in his chosen

art; and Dr. John H. Wigmore, Dean of the Faculty of Law at Northwestern University, President (1916) of the National Association of University Professors, an honored head of American jurisprudence, whose sympathetic studies of European laws and customs for a quarter of a century, exceptionally qualify him to render an appreciation of our debt to English and Roman law; of Honorable Dudley M. Holman, President of the International Association of Industrial Accident Boards and Commissions, whose work in Massachusetts having won for him the approval not only of the Commissioners of Social Insurance of all the states of the Union, but of the English authorities as well, pre-eminently fits him to outline our debts to the European movements in this line; of Mr. Robert Ferrari, Assistant Editor of the Journal of Criminal Law and Criminology, whose work in organizing the first Department of criminology in an American university, whose extensive studies of the Italian science, the source and inspiration of the study throughout the world, whose appointment as special fellow from Columbia University to the University of Rome, the first appointment made by an American university for the study of European criminology, without doubt qualifies him to tell what we owe to European criminologists; of Dr. William H. Tolman, who as co-founder of the American Institute of Social Service, as United States Commissioner to many

European expositions, as a student of social and industrial conditions both at home and abroad for more than a generation, and as founder of the American Museum of Safety, is authoritatively fitted to write of sociology and of that which we owe to European study, initiation and investigation in that line; of Dr. Edmund J. James, whose great experience, deep wisdom and wide studies in Europe make him supremely able to render an unprejudiced appreciation of the general sources of our educational development.

BEFORE proceeding to the contributions of these noted men, it is wise to review the constructive work of European civilization and its realization in scholarship, science and art. Our review extends from prehistoric and savage man, his religion, ideals and methods of expression, up to the Dawn of Magnificence; it embraces the efforts and accomplishments of the Greeks and Romans in their Pursuit of Perfection, the Greek for perfection of the body, and the Roman for perfection of the state; it makes us sympathize with those rare souls, who, during the Period of Adjustment, so often and so wrongly termed the Dark Ages, preserved for us the culture of an earlier civilization; it makes us feel the thrill of the Time of Awakening that dawned first in Italy and then spread throughout Europe; it leads

us to understand the struggle necessary to establish the Epoch of the Individual; it aids us in comprehending and appreciating the height of human achievement reached by the civilization of western Europe and enjoyed by us today in the Age of Attainment.

After so comprehensive a review we shall be more ready and better qualified to realize the debt we owe and the appreciation we should render.

Introduction

Before beginning any study it is important that the subject be as clearly defined as possible and also that some idea be formed as to what we want from our study: whether the course treats the subject exhaustively with particular attention to details or whether the intention is to give emphasis to general facts and tendencies with the idea of providing a frame work or unifying principle for any detailed knowledge the student may already possess or afterwards acquire. It is also well to know why we are entering upon that particular study. What is it going to do for us? Is it going to benefit us mentally, spiritually or materially? Our course is entitled "Civilization—An Appreciation". Now what do we mean by the word "Civilization"?

When we speak of a race or people being civilized we mean in a general way that they are living in an improved condition of society, the opposite of which is barbarism; that they are exhibiting political and social organization and gain in knowledge and refinement. In other words we

assume that there has been growth and advancement. We also recognize that this advancement in any one country has not necessarily been at a fixed rate, and that it has varied in degree and kind, but most of us do believe that mankind as a whole has been more or less steadily advancing and will continue to advance. We qualify the above statement by saying "most of us" because we recognize that there are broadly speaking two types of thinking—the idealistic type and the mechanistic type. For example, the idealistic mind believes that war can eventually be done away with while the mechanistic mind believes that war is inevitable, even that it is a good thing in as much as it is a necessary check on the increase of population. The extreme type of the mechanistic mind will probably deny that there has been any improvement or advancement of mankind—in other words, only an improvement in material things and will be able to present an imposing array of facts to support the contention.

The same facts that the idealistic type use to prove that there has been advancement are used by the mechanistic type to prove the opposite, so that the conclusions we arrive at or theories that we form from a given set of facts depend fundamentally upon our way of thinking which is largely a result of our education. Within recent years an entire system of geometry called non-Euclidean has been

built up upon the postulate that parallel lines if extended far enough will meet, and as the opposite of this postulate cannot be proven empirically it cannot be actually proven that the conclusions entirely opposite in most respects to the accepted Euclidean geometry are wrong. So that when we accept the Euclidean system of geometry as true it is because our education has taught us that parallel lines extended to infinity will never meet.

In presenting the facts and drawing certain conclusions from these facts in this course, the editors start with the belief that mankind has been advancing and will continue to advance. This course, "Civilization", then is the narrative of the progress and accomplishments of mankind in the finer things of life, and more especially of those things that have entered into and formed the basis of our present day life. The sub-title of the course, "An Appreciation", means that we are attempting to arrive at a true and just estimate of these accomplishments.

That the subject "Civilization" has interested the world since the Armistice was signed is evidenced by the fact that a large number of universities, colleges and schools have started courses of study called Civilization. This has happened not only in the United States but in England and France. For example, a series of lectures have recently been given in Kings College, University of

London, on Medieval Contributions to Modern Civilization. These lectures have been published in book form and it is interesting to note that the publishers state on the jacket of this book—"The stand point of this book is the present day. It is not a collection of antiquarian studies but a careful and systematic examination by experts of the Elements in Modern Civilization which owe their rise to the Middle Ages." The University of Paris has a course on Civilization which has also been published in French but has not as yet been translated into English. Besides the publications mentioned above dozens of volumes have recently come from the press such as "The Evolution of Civilization" by Joseph McCabe, "The Legacy of Greece", a series of essays by Gilbert Murray and others, "Our Hellenic Heritage" by H. R. James, "The Salvaging of Civilization" by H. G. Wells, "Civilization in the U. S." by 30 contributors.

As is the case with the start of all new movements many of these volumes are concerned with tearing down and clearing the ground for the movement. Others are concerned solely with promoting the idea of the great need of a fresh study of the past in order to understand the present without in any way entering upon the study itself. An example of this is "The Mind in the Making" by James Harvey Robinson. The following are quotations from the last named book.

"We have, however, first to create an *unprecedented attitude of mind to cope with unprecedented conditions and to utilize unprecedented knowledge.*" (The italics are the author's).

"As a historical student who for a good many years has especially engaged in inquiring how man happens to have ideas and convictions about himself and human relations which now prevail, the writer has reached the conclusion that history can at least shed a great deal of light on our present day predicaments and confusion. I do not mean by history that conventional chronicle of remote and irrelevant events which embittered the youthful years of many of us, but rather a study of how man has come to be as he is and to believe as he does."

"The origin and progress and future of civilization are ill understood and misconceived. These should be made the chief theme of education."

While this course of study, Civilization, an Appreciation, was already planned and to a large extent completed before the publication of the above named volume, the extracts as quoted constitute an admirable statement of its aim and the reason for its preparation.

The greater portion of this aroused interest in Civilization as a subject of study undoubtedly lies in the Great War. When this conflict broke out in Europe it took some time for the average man or

woman either here in America or over in England to grasp the fact that it was a reality and not a dream. At first it seemed that it could not be true, and then as it dawned on the world the conflict was actually on few of us could bring ourselves to believe that it could possibly continue any length of time.

It is true that isolated individuals like Lord Roberts in England had raised their voices in warning that such a conflict was not only possible, but considering the drift of events, entirely probable. Prof. Usher a few years previous had written a volume entitled "Pan-Germanism", setting forth the aims and ambitions of Imperial Germany and the preparations which were being carried out to realize those aims. But while Lord Roberts' voice was scarcely heeded by even the most enlightened thinkers, and Prof. Usher's book had been sold to the extent of less than a thousand copies, Norman Angel's book, "The Great Illusion"—attempting to prove that under modern conditions war could not be made profitable to the victors and therefore implying by inference that such a war was highly improbable—gained an enormous reading public both in England and America.

Is it strange then that the Great War came as a distinct shock to all the English speaking world? And that the first reaction to it was a sort of chagrin in realizing that such a cataclysm could

happen without being foreseen? We immediately sought for information regarding the causes which brought it about. Usher's "Pan-Germanism" went into edition after edition, nearly 300,000 being sold in the United States. We turned to our statesmen, and to our educators expecting them to be able to tell us of the causes leading up to it, of its probable duration and extent, and especially of what the consequences might be, and we were painfully surprised to discover that they could tell us very little about the causes and that their opinions regarding the duration and consequences were of little more value than those of the ordinary layman.

We all agreed that it was a crisis in the world's history and that in whatever direction the change might be the world was not going to be the same after it was over. We were hungry for information and read avidly anything we thought might give us that information, feeling that so long as our leaders had failed us it was necessary for us to educate ourselves so that we could form our own opinions. We commenced to study maps of Europe; to learn for the first time the proper pronunciation of rivers and of cities in the war area and to learn of political and geographical conditions of countries the names of which were hardly familiar to us. We were especially anxious to know of the thoughts and emotions of the people in the countries at war. We want-

ed to understand the French. The way the French people had arisen to the requirements of the situation made us doubt the reliability of our previous held opinion of their character and temperament.

As the war progressed we were startled at the depth and intensity of our feelings and we commenced to learn that in a crisis of that sort we were governed more by our feeling than by our intellect and that the roots of those feelings were largely racial and extended far back into the past. Slowly public opinion here in the United States crystalized in to the realization that we must join in the struggle. Then followed a wave of idealism such as we never before had experienced. Party differences were forgotten and the whole nation unitedly backed up the President and his councelors. Loans involving sums more immense than ever before in history were oversubscribed. We cheerfully submitted to regulations regarding food and fuel. A daylight saving law was passed without a dissenting voice. We accepted without protest a system of conscription for raising an army. We gave without stint to all the agencies connected with the welfare of our forces. Beyond all we accepted as a fact that we were fighting to help make the world safe for democracy, that this was really a war to end war, and most of us believed that the ties that bound the Allies together would never be broken but would form

the nucleus for some kind of international corporation which would at least go a long ways toward preventing wars in the future. Then came the Armistice which for a few hours turned the world delirious with joy, followed by the months of negotiation ending in the Treaty of Peace and in the League of Nations, the covenant of which President Wilson brought back from Versailles for the approval of the senate.

After this came the inevitable swing back of the pendulum and we entered into a period of uncertainty and confusion, puzzling if not disconcerting to all who believed that a new order of relationship of man to man and of country to country would arise, phœnix like, from the ashes of the great world conflagration through which we had just passed. It was as though elements held in solution had suddenly commenced crystalizing into their original forms, or as in the case of fully a third of the world into new forms strange to any previous experience.

Forces of revolution even here in our own Country advocated the throwing into the scrap heap of the very foundation principles upon which our civilization is builded, preferring anarchy and chaos in which their followers were told they couldn't be worse off than they then were. Not only thinking people but the common man everywhere who is always guided more by his feelings than his intellect

has lost faith in the old forms of social and political organization and the crying need of the world has been for leadership and guidance. Again thinking people wanted some illumination to guide them, some information which would explain both the cause of this confusion and unrest and would point out the possible paths out of it.

Had the whole world been under the influence of some powerful drug and just awakened from a dream to the cold facts of life to find that not only had we not attained the basis for a new social and political order but that conceivably we were drifting into a second Dark Age. Our political and educational leaders again disappointed us. Such writers as H. G. Wells informed us that the whole structure of our civilization was tottering. After a six weeks' sojourn in Russia he wrote a series of articles syndicated in newspapers all over the English speaking world in the introduction to which he promised us basic facts which would make clear to us just what this Russian breakdown meant and would mean in the future to both the Russian people and ourselves, and as a premise made the astounding statement that the real disconcerting feature of the whole Russian debacle was that a civilization akin to ours was disintegrating before our eyes. In the next instalment he makes the statement that 90% of the people of Russia are peas-

ants and that they were better off now than under the old regime proving from his own mouth that his premise was incorrect in as much as a civilization based upon a population 90% of which were peasants close to the soil and practically self-supporting, and independent of outside influences could not be akin to a civilization in which the large majority of the population were part and parcel of a highly complex industrial machine whose very existence depended upon the smooth and uninterrupted working of that machine. As his articles came from the press it was evident that while they might be considered a brilliant piece of newspaper reporting of things seen, as a piece of philosophical writing that might serve as a guide to the future they were worthless.

Under these conditions it is not surprising that a sound instinct has led thinking people to turn to a study of the currents of the past as the surest method of being able to discern and trace those currents in the present whirlpool which will eventually emerge into the river of the future.

Such a study, we believe, if carried out along the lines of this course, Civilization, an Appreciation, will lead to certain basic convictions which may be summed up in a partial way as follows.

First. That most of those things which

have been accomplished in past civilizations and handed over to the present generation as an inheritance are well worth any efforts to preserve and that the main problem is not as to whether we should use them but how we can best use them. In this connection it can be pointed out that a bare list of the accomplishments made, say in the past hundred years, in the different realms of human endeavor can possibly present to our minds a more vivid and enlightening picture than we could obtain from reading a dozen volumes explaining them in detail.

Second. That nations are born, reach their maturity and decay, and that this process in most instances is so slow that it is not apparent to contempories. The decline of Rome, for example, covered hundreds of years and there is no evidence that any Roman contemporary was aware of it.

Third. That every nation or peoples have contributed to the general fund of civilization, certain elements which cannot be counted as anything else but gains.

Fourth. That consciously or unconsciously, sought for or unsought, the leadership of the world was invested in some one nation or peoples at a given time.

Fifth. That all the evidence points to the fact that the mantle of leadership, however reluctant

we may be to assume it, has fallen upon the shoulders of the United States of America.

Sixth. That national movements and especially world movements are necessarily slow and that while a revolution may happen over night the working out of a new system to take the place of the old is a matter of decades, possibly of centuries.

Seventh. That the power of public opinion as a governing force has steadily increased in the past hundred years and was enormously accelerated by the world war until it is not too much to assert that it is the only real vital fundamental governing force in the world today. Even the present despotism of Russia with all its autocratic powers had to bow to the will of the peasants and make changes directly opposed to its asserted principles.

It is in this dominance of public opinion and especially in the rapidity of its growth in power in the past few years that the real danger to the future lies. Until the public learns to understand not only the extent of this power of public opinion but also the responsibilities that exist in its very nature and are inseparable from it; until the public is willing to use this power intelligently rather than emotionally it must expect that those placed in government by its sanction and holding these positions only by its sufferance will exhibit the same vacillation, the same uncertainty and confusion of

purpose as does public opinion. We shall be constantly confronted with such spectacles as Lloyd George promising his public to exact an indemnity from Germany large enough to pay all of England's cost of the war including the pension list when he knew from perfectly reliable figures and information that it was an absolute physical impossibility to do so even if it were desirable.

The public is to a large extent educated and public opinion formed by reading the newspapers' accounts of daily happenings written by men who have photographic minds, reporting what they see. These reporters and their editors are almost wholely concerned with contempory causes, ignoring the real roots of the problem which extend back into the past. If we look at the quotations of the stock market we see a daily fluctuation of prices. If we read the market comments of the daily newspapers we find them almost wholely concerned with attempts to explain these daily fluctuations. We might read these daily accounts for years and fail to visualize the general trend or obtain an inkling of the causes back of it. If we examine a chart of the stock market we shall probably find that the general trend has been steadily moving up or down for a considerable period of time and by studying the causes behind this general trend discover that they were comparatively few and had little in common with the causes of the daily fluctuations.

In a study of the past such as this course is intended to afford we hope to be able to discern the general trend, the dependence and influence of one branch of human endeavor upon others. Above all we hope to form the habit of viewing contemporary events in their proper perspective. We can then perceive that the pessimistic outlook of those writers who tell us that everything is "going to the dogs" is because they take into consideration too short a period of time.

A large number of our ills at the present time are industrial ills, problems of how to equitably and justly distribute between capital and labor the fruits arising from their contribution to a common industry. If we only take into consideration the few years that have passed since the close of the War it would require an optimism beyond the average to discern much progress but if we stop to realize that this industrial organization of society is less than a hundred years old and that it was something entirely new in the development of civilization and then if we sum up the progress that has been made in the betterment of labor conditions and in society's control of capital we will quickly realize that the progress made in so short a period of time has been really phenomenal. This habit of mind of searching for the general trend and general causes of contemporaneous happenings is the most impor-

tant thing we can cultivate in our observation of current events.

If we examine the happenings in the U. S. since the close of the war from this general viewpoint we cannot fail to see that the general causes back of them have been a striving for power After our declaration of war against the central powers the executive department of our national government was delegated or assumed powers and authority which in times of peace the legislative branch and public opinion would never have permitted. Nation wide agencies like the Y. M. C. A., the Red Cross and the K. of C. expanded enormously and were delegated power and authority way beyond their normal scope. Labor made gains in power and authority; capital in most cases acceding voluntarily. The churches, not being organized on a national basis, were not able to increase their power and authority. So soon as the Armistice was signed there commenced the struggle on one side by those agencies who had gained power to hold and consolidate that power, and on the other side by those agencies who had lost power to regain what they had lost. The legislative branch of the national government immediately began to assert its rights and prerogatives and to attempt to get back into its own hands those powers which had been delegated to or assumed by the executive department.

This we take it was consciously or unconsciously the fundamental motive of the struggle that ensued between these two branches. Capital immediately commenced a drive to get back into its hands certain powers and gains which labor had accumulated during the war period. The churches in a belated effort to effect a national organization started the Inter-church Movement. While by some this struggle to shift the balance of power back to its pre-war status is looked upon as reactionary and deplorable, a little dispassionate thinking will lead the majority of intelligent people to the conclusion that it is an entirely logical movement and indicates a healthy condition of society.

The fact that this power was used for the most part in an unselfish way and was necessary for the accomplishment of our war aims is no guarantee that it would be used as unselfishly or that it is desirable or necessary in times of peace. By getting back to somewhere near our pre-war basis we are in a position to take the proper time to judge as to whether or not an increase in power of some or all of these agencies is something we want incorporated permanently into our social or political system.

The next important thing to be cultivated is the education of public opinion. If public opinion is going to continue to hold its power as a governing force it must use that power intelligently and in

order to use it intelligently it must have the facts and appreciate what they mean. The trouble with our officials at the present time is that although they are seemingly striving to learn the trend of public opinion so as to travel with the tide, they make little effort to take the public into their confidence and give them the information and facts which can alone furnish the basis for an intelligent public opinion, an opinion worth following. It is an insult to the intelligence of those of our national officials who have in charge the foreign affairs of the country, to suppose that they have no basic principles which guide them in the formation of a foreign policy under which their handling of particular cases is entirely logical. But what are those principles? Even the most astute political correspondents seem to be unenlightened regarding them and can only supply us with their own surmises and conjectures. Either the public must refrain from exercising the force of public opinion and be content with blind faith in the fact that the president and his advisors are acting upon basic principles and that those principles are correct ones or it must demand that those principles be made public property and that enough of the facts in each particular case be given publicity so that the public can use enlightened judgment both as to the validity of the principles and as to whether the particular case is handled

properly according to those principles. If the basic principles are once made known those who agree with the principles will be satisfied if any particular case is handled according to those principles. Those who do not agree with the principles will not attempt to influence the handling of a particular case based upon them but will endeavor to bring about a change in those principles either by influencing existing authorities to make the change or by electing to office those whom they believe will do so.

Every indication points to a constant increase in the power of public opinion as a governing force throughout the world and it is most unlikely and probably undesirable that it should ever lessen. At the same time it is too much to hope that with this increase we shall more than occasionally elect officials who will expend their efforts in educating public opinion rather than in discovering what that opinion is at any given moment and attempting to follow it. Therefore, the nearer the public can come to formulating for itself the proper principles that should guide the nation the less will be required from our public officials in the way of leadership and the less erratic and more effectual will be the government through the force of public opinion.

If this course can help even a small percentage of the public to formulate proper basic principles its preparation will be more than justified.

While in the foregoing we have called attention solely to the larger aspect of this course—the relationship of the individual to other individuals and to society, there is another aspect which it can be argued is almost as important and which certainly should not be overlooked—the relationship of the individual to himself. Even a partial gratification of the passion for self improvement which exists in all normal minded individuals has the power of giving a more lasting satisfaction than has the full gratification of any other passion or desire.

The ability to understand and appreciate a fine painting, a beautiful piece of sculpture, an interesting piece of architecture, gives a zest to life that once having been experienced would not be parted with for any amount of material gain.

We are firm in the belief that to a lesser or greater degree every human being is capable of appreciating, of feeling, or of responding to the appeal made by truly beautiful creations, and that in developing this power of appreciation he not only gains a larger understanding of the aims and beliefs of the times that produced these great creations but also what is still more important, he gains a larger insight into his own ability for growth and into his own capacity for enjoyment.

A Beginning

THE inquiring mind is constantly searching for the reason of things. It realizes that the proper acquiring of knowledge necessitates the command of the past. An understanding, then, of the present condition of civilization presupposes an understanding of where civilization began, how it began, why it began and through what steps or stages it has progressed to reach its present stage of development. This series of queries puts before us the long and in many places vague panorama of man's painful but victorious struggle with the forces in nature and within himself.

The history of civilization is a story of man's unceasing effort to conquer his surroundings and express himself. The first thing that distinguished primitive man from the beasts was his use of the things about him to assist him in overcoming his environment. His next great step was his effort, hideous and uncouth as we now think it, to adorn his surroundings and himself. Whole races have been swept away and nations exterminated in the

passage of time; and the nation, though a thing of the past, left an undying legacy in its monuments and ruins.

The deep and careful study of these remains is of threefold importance. It is interesting in and of itself; its thorough understanding gives an insight into the development of the human race such as no other study gives and it also leads us to a knowledge of the sciences and an appreciation of the workings of the forces of nature. The students of the development of mankind are almost entirely dependent for information concerning prehistoric peoples, those vague shapes which so fascinate our imagination, upon the remains of their primitive arts scattered over the face of the earth, or buried in its depths.

The historian is concerned with facts. He attempts to separate the mythical from the real and select the true from the false in tradition, but the historian alone does not give us a comprehensive understanding of civilization; for the complete unravelling of so complex a matter as the development of a highly civilized people is too difficult a task for any one kind of a scholar or scientist. We must, in order to understand our present civilization, understand as fully as possible the development of the barbaric nations, and to comprehend them we must know all we can of primitive man, his surroundings, his needs and his desires.

These are some of the reasons why the one who would really understand present day conditions must turn to the geologist and the very beginning of things and it is fortunate that we have him to turn to, for we are now out of the realm of the historian, in the darkness that existed before the earliest bard, who was the first historian, started to chant his traditions.

The geologist counts time not in days or years but by periods or ages comprising such stretches of time that it is almost impossible for us to conceive of them. Let us try to get some idea of these almost measureless ages, we will thus be better able to appreciate the long upward struggle of the human family.

The geologists have agreed upon four rough grand divisions of time in connection with the history of the earth. These divisions differ widely from each other, nevertheless the development from one to another was so gradual that it is impossible to say where one begins and the other leaves off.

The first of these periods, the Archaic, approached infinity in length. It is distinguished by the absence of any form of animal or vegetable life, though the very lowest forms of both appeared towards its close.

The Paleozoic period was distinguished by the presence of giant ferns and by the earliest forms of vertebrate animals.

The Mesozoic, the third period, by flowering trees, many resembling those now on earth, and by reptilian vertebrates.

The Cenozoic, or quarternary period, was the last of the great geological divisions of time. During this period mammals flourished and during the latter part of it man appeared. Here we can gain some idea of the vast ages we have glided over so glibly, by bearing in mind that some geologists now set back the advent of man to five hundred thousand years ago, and that they agree that the time occupied by the development of man is but short compared with the earth's entire history. They further agree that man's time of real history, ancient and modern combined, is a very small portion of the entire time that he has been upon the earth. Try as we will the comprehension of these vast spaces of time is as well nigh impossible to the ordinary mind as the comprehension of the distances given us by astronomers in the measurement of the universe.

When man first lived upon this earth what we now know as Europe presented a very different aspect. What are now Sweden, Denmark and Scotland were buried under a sheet of ice; the glaciers of the Alps were of vast extent; there were no Straits of Dover to separate France and England; Italy and Sicily were one; and these are but a few of the many differences we might mention. Horses, cattle

and goats existed as wild animals, and other species of animals now extinct or which now exist only in warm or very cold climates then roamed the earth. Man was ignorant of agriculture and lived on fruits and plants and spoils of primitive hunting and fishing. This period terminated some ten or twelve thousand years before the Christian Era and at its close the fauna, the flora, and the climate of Europe had become very much what they are to-day.

Prehistoric Man

THOSE who make a study of man's early life upon the earth have taken the facts developed by geologists and from them divided the history of prehistoric man into four ages.

The Old Stone, or Paleolithic Age, was that misty time when in Europe the mammoth, cave bear, the sabre-toothed tiger, the woolly-haired rhinoceros and other extinct mammals shared the land with man.

The New Stone, or Neolithic Age, characterized by weapons made of flint and other stone when there seems to have been no knowledge of the use of metals except gold.

The Bronze Age, when knives and weapons were made of bronze.

The Iron Age, when bronze was still in use for ornaments and for handles of swords and knives but iron was used for blades.

It must be constantly borne in mind that these divisions are in no way exact. They are made and named by students to make the study of a difficult subject a little simpler. Nature makes no

such radical divisions or sudden changes. Her changes come to pass almost imperceptibly and in almost measureless series of years.

While this classification applies well to Europe and probably to Asia and Africa, it is never safe to presume that discoveries belong of a certainty to any one of the four periods solely because they are made from one material or another. Of the prehistoric life of China and Japan, for instance, we know but little, but recent researches tend to prove the use of iron there before that of bronze. Again, some of the American Indians passed at once from the use of stone implements to those of iron.

It was but a little more than half a century ago that scientists were able to state with any hope of being believed, that a race of men using rudely chipped flint weapons existed in Europe when the extinct mammoth reindeer roamed its plains. In spite of all of the wonderful finds that have been made and the knowledge the scientists have given us, there has nowhere been found an answer to our question of just how and for what use the first stone implement was fashioned. We must make use of our knowledge of nature and of man and then set to work our imagination and draw our conclusions.

Any image that we might possibly draw of the first man could in no way be an attractive picture, for he could have had no outward appearance which would have in any way distinguished

him from the brute. So far as sustaining life and adjusting himself to his surroundings were concerned, he was apparently at a disadvantage to many animals. Many birds of to-day are better able to make themselves abiding places than was the first man. When the first man used for the first time a stick or a stone for defence he became in truth a man and began fulfilling nature's intention, by showing himself of a species that was fitted to survive. When he used a stone to crack a nut exactly as do the monkeys he was not showing any superior intelligence, but when by accident he cracked or chipped a stone and made future use of the knowledge thus gained to crack and chip other stones, he then started on his endless journey towards civilization and culture. There was present in man a something for accident to work upon which was not present in the brute. When he changed one stone with full intent to better suit his purpose, no matter how little or how crudely, he began to show mastery over nature. It is true that this is no more than some of the higher animals have done, but man never ceased his effort; the assurance of a mere existence has never been enough for him.

When the primitive man added one line, one notch or curve to his implement or weapon solely to make it more pleasing to the eye, he made a more radical and momentous change than any

that has ever followed. That first man moved by a vague desire for beauty took the first step toward self expression, the almost pitiful foundation of the art and culture of after ages.

The development of prehistoric man up to a certain point throughout the world must have been much the same, modified, of course, by what he found to work upon, but our knowledge is more secure and our interest more strong in America and Europe so we will confine our study largely to the development of man on these two continents. It can be shown by comparisons of handiwork that human emotions, human impulses, and human means of power and expression are universal; that the mind of the American Indian, of the Chinese, of the Greek, was potentially the same, and that each developed only in so far as it was able to master nature, to express desire and through expression to become conscious of its own power.

In every museum may be found collections of the implements of the New Stone Age, flint axes, wedges, chisels, arrow heads, and many others of whose intended use we are uncertain. While every stone hard and tough enough for the purpose was used, such as jade, carnelian, agate and granite, flint was most frequently used on account of its hardness and mode of fracture which is such that a good sound block can be chipped into almost any form required. Pebbles and blocks of flint picked

up on the surface of the earth were used, but much time was spent in securing the material and recently excavations have been made in several countries which show the print of human hands and feet in the layers of chalk in which the flint was imbedded. Deerhorn picks coated with chalk were found in one mine in Great Britain, the tools evidently having been left there at the close of a day's work. Similar shafts have been excavated in France and elsewhere. Some of the old Spanish writers have given us a description of the manner in which the Aztecs obtained their stone flakes or knives, and from them we learn something of the skill required by the earliest races to transform the stones into implements for their use.

The axes and wedges are next in importance to the flint flakes. The largest and finest of these have been found in Denmark. They are occasionally polished but quite as often left rough. Some were evidently held in the hand and were thrown or struck against whatever object or animal was to be crushed or killed; others were fixed in wooden handles, as the peculiar grooves show where the handles were attached. The handles have perished in nearly all cases, but we know how they were attached by means of thongs by our North American Indians.

One at first questions how these stone implements could serve the purpose for which we have

so long used metal tools, but if you read of the habits and manners of savages of to-day, you will find that they cut down trees with the assistance of fire and hollow them out into canoes with axes quite as rude. In Danish peat bogs several trees have been found with the mark of stone axes and fire upon them, and in rare instances stone wedges have been found lying beside them.

Other stone hatchets are pierced for a handle and consequently made of softer stone than flint, but it is probable that they belong to a later time when the discovery of metal made easier the boring of a hole for attaching the handle, although this conclusion does not necessarily follow.

The spear heads vary in size from those scarcely larger than arrow heads to others twelve and fourteen inches long; some so crudely made as to seem still unfinished while others are wonderfully fine specimens. Some of the daggers so closely resemble metal daggers in shape and outline that we cannot be positive that they are not productions of the metal age copied after bronze daggers; they are often marvels of skill in flint chipping. The sling stones are either rough pieces of flint reduced by a few blows to a convenient size and form, or rather flat disks, some remarkably well made.

The peculiar oval stones indented upon both sides have been found in many lands and no one has been able to definitely decide their use.

They are said by some to have been used merely as hammers or chippers when held between the fingers and thumb, though the variance in depth of the indentation and occasionally a complete perforation of the stone makes us question the statement.

The arrow heads vary infinitely in form and size, from the tiniest, not larger than a thumb nail, to those so large that they cannot be distinguished from lance heads. The real arrow head is generally not much more than an inch in length, but the transformation into the javelin and then into the spear head is so gradual as to be indistinguishable. Different tribes may have preferred different forms but the variety in shape is probably generally due to the use for which it was intended. The arrow head intended for war was usually of the tapering, barbed form such as we know the North American Indian used, while the unbarbed or leaf shaped heads were probably used for hunting.

We have not attempted to list all the kinds of flint implement of the stone ages but the foregoing are some of the principal forms and give an idea of the stage of development, the inventive power, and the skill of these ancient people. The two stone ages were periods of discovery, invention, and even of prophecy and the advance shown in them over the man-animal who used only an unshaped stone or club was most wonderful. Accident it may have been that gave man his clue, but he

then began to assert his supremacy over nature by taking the material offered and converting it to his needs. The first attempts were crude and the progress slow but the germ of great possibilities was there. The science of husbandry, of engineering, of architecture, the arts as well, were potentially there; for in building the viaduct, the fort, the cathedral, man is but carrying to higher and yet higher perfection that which he began to do when he first formed the rough materials about him into tools and weapons for his own use. The conquest of thought over matter which began when man first shaped his rude stone implements has never since ceased.

During the earliest ages man hunted and fished in the most primitive manner and his flint implements have been found in the valleys of such rivers as the Somme, the Marne, and the Thames deep beneath the sand piled up by the passing centuries. It is probable these men lived in the open air or under shelters made of the branches of trees as no traces of their habitations have been discovered.

We know more of a second period. A great geological change occurred, the reindeer unknown to the earlier age furnishing not only food but horn, bone and tendons which man discovered he could use. Daggers, harpoons, wedges, handles, all of reindeer horn have been unearthed. During three-quarters of the year the geologists tell us the weather was cold and severe and man sought shelter in

natural caves. The remains of the earliest known inhabitants of Greece are found in caves. The aborigines of Germany and France, contemporaries of the mammoth, rhinoceros, aurochs and elk, dwelt in caverns; the first people of what is now Sweden lived in rock caves. In America the earlier tribes lived in cliff dwellings, and so we might go over the surface of the globe and find that prehistoric man was everywhere a cave dweller at the stage of development represented by the Stone Age products. The crypt, the catacomb and the rock-hewn temple are all outgrowths of cave dwellings. The dwellers in these caves were of a very low stage of civilization. There was an absence of pottery except in very rare instances, of metal, and of polished stone instruments, an ignorance of agriculture and domestic animals.

It would be impossible to here describe the many caves in which have been found human remains with those of extinct animals, and bone, horn and stone utensils; and in fact, many present evidences of having been occupied during times subsequent to those we are now considering. Some scientists question altogether the value of cave evidence, saying the bones of extinct animals may have lain there ages before the appearance of man, that relics of the human period may have arrived centuries later. However uncertain we may be concerning other zoological evidence, the antiquity

of man can be compared to that of the reindeer, for as we have stated, the evidence there is conclusive, not only the bone and horn relics left, but the broken bones have been found bearing marks of knives, broken open to obtain the marrow, and a vertebra in one cave was found pierced by a flint flake, which must have been done when the bone was fresh. Whether or not the man of the cave was as ancient as some would have us believe, we know that in spite of his low stage of civilization he was the first to leave us any real evidence of the human, universal impulse to express himself in a language such as the mere animal has never known.

Human industry and civilization is not entirely the result of necessity. While primitive man made a great step in advance when he first fashioned his stone implements because of the urge of necessity, he made another and even greater advance because of the promptings of an innate desire for the beautiful. A stone implement or a habitation in a cave hidden among the rocks was unquestionably a long step forward, but the moment the individual tried to decorate his stone implement or the wall of his cave he made another and even greater step, for to utility he endeavored to add beauty. When, attracted by a colored pebble, he hung it about his neck, he took another and further step and separated art from utility.

No matter how primitively expressed, art is not a necessity of physical life. The fact that all primitive peoples have attempted some form of decoration, either applied or isolated or both, shows that art is a spiritual necessity. It is by means of art, throughout the ages, that man has endeavored to express himself to others as well as to attract others to him. The beginnings of art and the beginnings of society coincide. We can only come to some understanding of the lives of ancient primitive people by an examination of what remains of their art and by a comparison of that with the arts and customs of present day savages throughout the globe. It is equally true that an examination of the arts of later peoples will give us a correct estimate of their social relationship and development in civilization.

Animals show a preference for certain colors but they make no effort to transport color or to make use of materials to create colors. The cave man not only noticed differences in colors but he used them to decorate his cave, selecting for that purpose the most vivid, and he engraved and painted animals on the walls of his cave. Where this art was developed, or when, or how, are questions still unanswered. The desire and love of beauty is undoubtedly inborn, distinguishing man from the lower animals, but primitive men were not created artists and the best productions of the cave man must have

been the result of a long period of gradual progression no record of which now remains.

We have grown into the habit of turning to the East for evidences and examples of the most ancient human habitations and productions, as a consequence we were hardly prepared for the revelations made, not among the ruins of the ancient East, but in the river valleys of England and among the hills of southern France and northwestern Spain.

It seems at first strange and exaggerated to speak of masterpieces of art among men whose civilization was so crude; who built no kind of dwelling place, who had developed no social institutions, who lived solely upon flesh of animals and fruits of trees, but among the drawings are some that deserve the name of masterpieces of the period.

Old Stone Age decorations were first discovered in a cavern at Altamire, Province of Santander, Spain, in 1879, but were not for many years accepted as authentic. The cave is a series of great halls connected by corridors; the entry, formed in consequence of a cave-in, leads to a large space divided into two chambers by a mass of fallen rock. Paintings and engravings are found in all parts of the cave. They are particularly numerous on the walls but the ceiling of one chamber still shows traces of black line drawings. Some figures are deeply engraved, others but slightly cut in; some in black, others in black and red, and again there are

frescoes of red, brown, black and yellow which mix and grade into numerous shades. The surface to be used was evidently first washed and scraped, the outline traced in black and the colors added. The large surfaces were covered with a thin mixture of color and the parts to be emphasized were colored more heavily. To secure shading and the light spots needed to give the idea of a round surface, the artist later evidently either washed or scraped the surface, removing the color in the desired places. One device found here, as in many caves, was that of choosing a part of the rock wall that would give, without much extra effort, the effect of a bas-relief.

Primitive man first essayed decoration by means of various combinations of lines which eventually became arranged into symbolical form. These symmetrical lines are just as much primitive man's expression of desire for rhythm as were the dance and music. The child, who in his mental history condenses the experience of the human race, when he first undertakes to draw makes unrelated lines. As his mind develops he introduces color and relationship in his lines and later endeavors to draw outlines of the animals about him in which he is at first more interested than he is in men.

These cave drawings contain signs and symbols many times repeated, as well as animals now extinct in Europe. Since the discovery at Altamire many other caves have been found in the same

region and the exploration of French caverns has more than kept pace with those in Spain.

In one of these chambers was found a stone lamp. It was broken in four pieces by the picks of the workmen, three of which were recovered. The shallow bowl contained matter which led the chemist to conclude that prehistoric man used lard or fat for lighting purposes. The artists must have used such lamps when engraving and painting their decorations, for the ornamented walls are not reached by sunlight. This fact makes the work more amazing and also makes us curious to know why these cave artists expended so much time and skill upon hundreds of drawings that could only be viewed by the artificial light of small lamps or fires. To say it was only to please the eye of the hunter who returned to his cave dwelling after a day given to the chase is hardly a reasonable statement.

A continued study of primitive people shows us that we cannot understand the origin of religious beliefs without understanding their arts, as their arts and their religion are so interwoven that we cannot understand the one without knowing the other. To-day there are no human beings upon the surface of the earth, no matter how primitive, who are without belief in some supernatural power; nor in prehistoric remains do we find these evidences of belief in an external power lacking. Call it superstition or belief in magic, it is, nevertheless, the

germ of all religious belief, which has developed because reason and faith have developed and have given other answers to the questions which forced primitive man to turn to magic. He early found means of supplying the necessities of life to which he added ornamentation as his expression of the beautiful, but about him were great forces utterly beyond his comprehension and the element of luck or fate must have constantly entered into his accounting for his varying fortunes.

He made implements of offense and defense and decorated them, but even so, nature was not to be subdued. She was all powerful, sometimes kind and sometimes cruel, and he knew of no way of opposing her forces. He must find something beside flint axes and arrowheads which would make life a little less arduous.

The cave dwellers were hunters, their lives dependent upon the animals they could slay, and it has been suggested that even so crude a people held sacred certain animals and perhaps made offerings to them and set up monuments to them in the form of engraving and painting. More reasonable to us is the idea that they may have had some thought of attracting the animals they needed by these same pictures. The animals represented are all those upon which man might feed and it seems quite probable that the cave man believed in some magical power resting in the pictures. It would, in fact,

be strange if the power to picture things, in a sense to create them by the use of tools and colors, was not considered in itself a mystical power. We to-day feel that same reverence before the work of a great creative artist.

The idea of there being some occult influence in mimicry is universal among primitive people and its beliefs and practices are not wholly unknown among civilized men. Pantomimic representation was in antiquity believed in as a vehicle of magic; according to primitive ideas a single gesture may bring to pass events that correspond to its import. By a dance a savage tribe may believe that it can cause the sun to shine or the rain to fall, winter to cease and spring to appear.

A study of savage and primitive customs will soon convince anyone that the belief in the magical connection between similar things played an important part in the life of the early peoples. The belief in picture magic is manifested by its negative as well as its positive results. But we know that in much of the early picture representation the motive back of the production has been to gain power over the things and ways depicted. In regard to any production of periods so remote as the Stone Ages we can, of course, only theorize as to the causes and purposes of the picture but among the later primitive people we find pictures and images used by the magicians for procuring various

social benefits. Most important magical sculptures and paintings are found in connection with agricultural rights, the fortunes of hunting and fishing, and medical practices.

A very plausible explanation is that most works of art give to the spectator, and doubtless to the creator, an illusion of reality. The primitive mind, like the mind of the child to-day, was not able to separate the real from the unreal, the deed from the will, and it seems reasonable to suppose that the mental illusion created by his picture leads the magician to believe that he has actually acquired a power over the thing he represents.

Again, evidence seems to contradict this theory for in certain regions and among certain tribes the picturing of their deities is forbidden and as a consequence there developed symbols and a treatment of nature that borders on caricature. When we come to a survey of the historic nations we will find these contradictions determining the trend of civilization and either assisting or retarding its development.

Hundreds of these drawings and paintings have been recorded and copied but we have attempted here to show but a few and these among the finest example of the cave man's art. You are of course impressed with the striking realism. Whether the figures are represented in groups or singly there is an accuracy which finds no parallel in

the art of the modern savage. Like most primitive work they are free from useless detail and unlike much of a later date they show a love of life and movement so perfectly recorded that they compare well with animal studies of modern times.

The approximate degree of intellectual development reached by the men of the prehistoric European caves is now a matter of controversy between experts. Absolute knowledge on the subject is limited and evidence too rare and fragmentary for us to build up a continuous narrative. When the cold period of Europe came to an end the reindeer disappeared from such places as France and was replaced by the stag; the drawings after the reindeer became very rare and finally disappeared entirely. Either the civilization of the reindeer hunters died out or with the reindeer they migrated toward the north of Europe. We have no evidence by which we can establish any definite connection between this development and that of any such ancient civilization as Egypt and Babylonia, although the cave art we have just described seems to be the very genesis of civilization for in it we can find the beginnings of engraving, sculpture, drawing and painting.

WITH the cessation of the cold of the reindeer period there followed one of torrential rains and humidity, the caves were flooded by streams of water, and vast plains were transformed into swamps. The beginnings of civilization of France and western Europe were swept away and it seems almost as though all the experience of artistic expression of early mankind had counted for naught and that a new species of humanity had come into being which was compelled to win its way under new conditions.

Of the beginning of this epoch, which is in truth our geological epoch, we have as evidence of man's state of culture the remains of camps and villages. The first traces of encampments built upon piles on the edges of lakes in Switzerland and France, known as the lake dwellings, date four or five thousand years before the Christian era. We have long been familiar with the civilization of these lake dwellers for innumerable objects fashioned by them have been dug out of the mud beds and carried to museums all over the world. There was hand-made pottery, hatchets of polished stone often of very fine workmanship, arms and tools of many kinds as well as personal adornments, but no object or decoration that can be really called an original work of art has so far come to light. At approximately the same time in England, Denmark, Sweden and Brittany and probably about the same date

in America man began to raise huge mounds, dikes and fortifications of wood and stone; dolmens, a combination of "daul" meaning a table and "men" meaning a stone, menhir, or long stones and cromlechs, or stone circles.

These strange structures, probably of the same date as the oldest lake dwellings, excite our interest by the antiquity of their origin and by the utter mystery which surrounds them. They are numbered by the thousands throughout western Europe and in America, and, though not so numerous, are not lacking in Africa where the pyramid seems to have been a magnificent development of the same idea. They are found in all degrees of development from a single standing stone of small size to mounds such as the Silbury Mound in England, which is one hundred and thirty feet high and covers five and one-half acres. It is supposed, although in many cases the evidence is very vague, that they were all intended as monuments to the dead. The subject of these mounds is in itself a fascinating one and we hardly dare venture upon our American ground where the mounds are almost without number and the story of their structure, their purpose and their meaning so interesting as to lead us entirely too far from the path we are pursuing. In passing, however, it may not be out of place to state that though efforts have been made to distinguish definite stages of culture progress in

America correponding to those established in Europe, there appears to be no close correspondence. In no part of America has there been discovered the remains of man or of his work that clearly indicate the presence of people distinct from the Indians and the Eskimo, or as having a culture markedly differing in kind and degree from those characterizing the aborigines of historic times.

The prehistoric progress was greatest in the Mississippi valleys including portions of the southern states farther east, and in the pueblo country comprising New Mexico, Arizona, part of Colorado, Utah and Texas. The Mississippi valley progress was characterized by the extensive mounds and fortifications, the pueblo country by ruined structures of stone and adobe. The Atlantic and Pacific slopes, the Great Lakes region, the north Rocky Mountains, the Great Basin, have yielded historic evidence in the moveable relics and the so-called kitchen deposits—mounds of shells and bones known as kitchen middens. The use of stone was universal among the tribes and chipped and polished implements appear to have been employed at all periods and by all people in every stage of culture.

In the north of Mexico important finds have been made in cavern dwellings, but generally speaking, there was no period in American pre-Columbian history which can with reason be

referred to as the cave period. In Virginia, Kentucky, Indiana, Missouri, Arizona and California, there are countless caves and they have been occupied, but nothing within them has given the archæologists any clue upon which to base a theory of a tribe of cave dwellers such as we know existed in Europe. Rock recesses were better suited to man's use than these deep caves. They were made by the undercutting of the water from sea or lake or ordinary stream and were often roomy and well lighted.

There were introduced at the time represented by the lake dwellings and the stone dolmens, two most important innovations in human history, the domestication of animals and the cultivation of cereals. There are no two subjects of speculation of greater interest than the inquiries into the questions of how man first conceived the idea of training and using animals, and how he first tilled the soil and sowed and reaped flax, corn, barley and millet. There has been much writing and discussion on both subjects. There have been many theories advanced but none of the theories have been positively proven and all we really know is that these two great advances were introduced at the time of New Stone Age and before the discovery of the use of metals.

The hunters of the caverns of the Old Stone Age had leisure to entertain themselves by their carvings and drawings but these later men were too

much concerned with the building of stone structures, of dwellings built upon piles, with the domestication of animals and the tilling of the soil, to give expression to their ideas in sculptured or pictured language; for barring a few rude attempts in terra cotta and a few crudely carved menhirs there are no even fair representations of either men or animals.

This rather confirms the idea of a new species of man having sprung up, a race concerned in other affairs because of the change in climate and in fauna and flora. They left what seems at first thought more nearly the true beginnings of our present day civilization than the well developed art of the cave dwellers. Some of the blocks of stones in the dolmens are covered with designs that must have been carved with stone instruments. They are nearly all lined, dotted, or notched ornamentation. There are many parallel bands, spirals and rows of dots. Occasionally a hatchet is pictured but throughout Denmark, Sweden, France, Spain, Portugal and Great Britain where the ornamented stones have been found there is not one single representation of human or animal life.

Man continued to construct the dolmens and lake dwellings even after he knew the use of gold and copper, the first metals which he discovered. Later he discovered tin and probably by accident stumbled upon the possibility of fusing

copper and tin and creating a new metal, bronze. It is estimated that the Bronze Age had its beginning between two or three thousand years B. C., so we are now coming to the consideration of works that appear quite modern after the glimpse we have had of the Old Stone Age.

According to some students of the past the discovery or introduction of bronze in Europe was unattended by any other great change in the manner of life of the people; others attribute the bronze arms and implements found in northern Europe to the Roman armies or to the Phœnicians or Etruscan merchants, while others believe the race of the Stone Age was replaced by a new and more civilized people, the Indo-Europeans, coming from the east and bringing with them a knowledge of bronze. A few are of the opinion that the ancient bronze was obtained directly by melting ore containing both copper and tin, though undoubtedly the method of fusing the two to produce a harder metal was known, which leads us to suppose the use of copper and tin must have preceded that of bronze. However, no tin implements have survived the attacks of the elements and only a few copper objects of this kind are extant. These questions we will leave for those more directly interested to follow further and will try to find to what use prehistoric man put the mined or fused metal.

The use of metal has long been known throughout Europe, Asia and Africa, while in America, Australia and the Oceanic Islands all weapons and implements were until a comparatively recent date, recent when we consider time as do geologists, made of bone, stone, wood or other similar materials. In Central America and northern South America we find an exception to the statement just made, as there bronze was used. The North American Indian used copper but he hammered it into shape and showed no knowledge of fusing metals.

The most characteristic objects of the Bronze Age are the celts, probably used for chisels, hoes, war axes and hatchets. They are to be seen by the thousands in the museums of Europe. In the museum of Edinburgh there are over six hundred, all cast, no two in the same mold, probably because the mold was broken or destroyed in the process. They vary in size from an inch to a foot in length. Some were evidently fashioned after the Old Stone Age implements and these are mainly of slightly alloyed copper and show no indication of the use of a handle. We find others with a small loop of metal on one side, probably used to attach the celt to the handle by a cord or tendon; another improvement appears in the axes that are made with a hollow place where the handle was thrust in. The celts are occasionally ornamented with circles, dots and lines. The swords are double edged, sharp

pointed and leaf like in shape, and without hand guards. The handles are sometimes flat and thin as though they have been covered with bone or wood, again solid and complete, and all are so very short that they could not have held a sword wielded in hands as large as ours, which leads to the belief that the introduction of bronze in Europe was by some tribe of small-boned Asiatics.

The spearheads, javelins and arrowheads, from two feet to one-half inch in length, are quite like similar weapons of all ages. Bronze fishhooks, sickles and knives were generally fitted into handles of bone, wood or horn and the blades, usually curved, have been found in tombs throughout Europe. Ornaments of bronze, unlike weapons, characterize no definite period, but may belong to any age, so we shall consider them in another place, but just to give a hint of the progress man has made from the rude stone ages when his purpose in life could only have been to defend himself from the elements and animals and provide the absolute necessities for his physical existence, we must here mention the invention of a now indispensable article, the safety pin. Glass beads were inventions of the Bronze Age also, but there were no glass vessels. The bronze ornaments and weapons show considerable skill in metal work for they were all cast and close observation of the objects will show in some the lines where the metal or sand moulds met, in

others, the marks left by the heat used in melting or burning off the wax or wooden mould.

The evidence of mental development in the Bronze Age is in the greater variety of instruments and implements, in their finer form and their linear ornament. In western Europe there seems to have been some fear or superstition that forbade the picturing of any living creature and for centuries, even after the introduction of iron tools and weapons, there appeared none but linear decoration. Geometrical designs were frequent; triangles, rectangles of various proportions, concentric circles and dog toothing and dotted bands ingeniously combined and arranged, show the decorative instinct of the metal worker of the time.

While in France and other parts of Europe the genius of the cave dwellers seems to have been lost, giving place to a decorative idea that excluded the picturing of living things, the case in the East was very different.

We have no evidence that real art had developed in Egypt during the Old Stone Age and nothing like the drawings of the old reindeer hunters have been discovered. Of that period of low civilization in Egypt the only evidences are the roughly worked flints which are gathered from the surface of the desert and are in no way remarkable.

Aside from the fine flint implements of the next period there are other relics that point to a

relatively high degree of civilization. There are stone vases of many shapes marvelously well made and showing a truly artistic sense of proportion and grace of line. They are made of colored marble, alabaster, porphyry and limestone; all of the work done by hand and frequently highly polished. On the banks of the Nile burial places of this period have been found by recent explorers, and in these graves are flint implements, articles of adornment, pottery and stone vases, wood and stone figurines.

Bowls, jars, vases and cups of reddish yellow clay of various shapes; double vases, square bottles, images of fish and birds, all appear in the prehistoric Egyptian pottery. The decorations of the vases consist mainly of linear design but occassionally human or animal figures have been found done in white on the red clay body, and a few crude scenes from the daily life of the people. While the representation of human figures in painting, in terra cotta, in wood, are extremely crude, they nevertheless show a dexterity superior to that of Western contemporaries, and a variety of subjects and methods unknown to the European.

We know very little of the actual development of the human family in the valley of the Euphrates, which is believed to be the site of the Garden of Eden, and it is necessary to take up Babylonian civilization from a much later period than

the one we are now discussing. From the deeper strata below the site of the old city of Troy and in the archaic tombs of the Grecian Archipelago have been excavated vases and rude figures which reveal elements other than those of a purely decorative style which are on a level with the Egyptian productions of the New Stone Age.

The last of the great prehistoric periods of production, that of the Age of Iron, carries us over the borderland of tradition and myth, to history; to the time when the periods of savagery seem to have been superseded by a state of life that was neither savage nor civilized, but was at least progressive, if barbaric. The wild peoples had come to be ruled and led by chiefs, rude organizations and laws had been established, agriculture further developed, and trade broken down barriers that had before existed between tribes. All of these developments were the result of relationships in the primitive family and they were all based upon fear and force. It was only when barter and exchange entered in, later developing into trade between tribes, that a new element was introduced.

Crude buildings of stone and wood appeared and iron was the new metal and was put into use not only for the old things but for numerous new articles. It was used for helmets, trappings for horses and even for bracelets, collars, rings and other personal adornments. Pottery, textiles, implements

of war and of household and agricultural use were improved and made more symmetrical and varied in design. Greater powers of abstract thought appeared, ideas of a Deity and future life were developing and though still a barbarian, man was now on the way to a real organization of society, to the systematizing of life, and was laying the foundations of the institutions through and by which he was to rise to higher states of culture.

This survey covering measureless years of production has been a very rapid one. In going so hurriedly over the periods from the Old Stone Age, how many thousands of years before man began to reckon time no man can know, we have entirely omitted subjects that have a place here but our purpose so far has been only to give some idea of the antiquity of man's development and of the painfully slow progress made through immeasurable archæological periods.

We have, for example, but mentioned the objects made of clay and we know the potter's art is a most important one in determining the antiquity and the habits, customs and general culture of people. We have scarcely touched the topic of ornamentation or decoration, which is in itself an almost endless study and includes that of textiles, of pottery, of bone and of ivory instruments, of monuments, of weapons, of dwellings, clothing and in truth all the objects with which the savage surrounds

himself. This second journey to lands of primitive people must necessarily carry us into all regions and we shall not further attempt a chronological view of man's development among the different tribes, but taking up the topic in a very general way strive to show how historical and modern civilization has developed.

Primitive Decoration

MAN'S problem, as already stated, is to find himself; in other words, to learn for what purpose he was placed upon this earth and to fulfill his mission, and since time immemorial he has been asking the everlasting questions, "How?" and "Why?"

He has created desires, and in gratifying them new desires have come, and on and on has gone the long and apparently never ending process of physical, emotional and intellectual desiring and gratifying. The men of the Old Stone Age, when they created the pictures on the walls of their caves, did not know they had hitched their wagon to a star but we know it now and the hopes, longings and desires which they began to nourish have never ceased expanding in spite of superstition and ignorance and of man's own stupid attempts at holding back that which is stronger than any individual or national will.

The beginnings of science, of art, of religion and of government in the order named are all to be found in the relics of the time before man

made use of a written language and long before any historical period. Then began the never ending struggle between science, art and religion, though all were born of the same desire to solve the mystery of life.

It is the mystery of life that arouses all minds, the mind of the child race and the mind of the child of the cultivated race; it has been and always will be the vital problem of mankind. The question of our relationship to life attracts us, our curiosity is aroused and we wonder, and wonder is the beginning of thought. In the child whose reason is not yet developed, imagination is set to work and curiosity is satisfied for a time with some emotional or imaginative object or idea which later is rejected for something more logical.

Unless mankind had put into visible forms the ideas he was capable of forming he would never have discovered his faulty conceptions concerning the mystery he was trying to solve. Every creation reacts upon its creator. By the receiving of impressions and putting the vague picture or idea into form, it may be in the dance, in song, in language, in the plastic arts, in the invention of utensils or the tilling of the ground, the impression has become an expression and the doing of the deed, the expressing, has enlarged the capacity for further receiving. Men as individuals or as tribes may exist without highly developed art, but man

remains savage or semi-civilized until lifted by art, and he then rises only to the level of his arts. In its highest sense art is the self revelation of the spirit, the great criterion of civilization.

It is little wonder that history from its earliest ages through Athenian culture down to the present time is so largely given over to a revelation of the part played by the arts. They constitute true history, they are the vital records, the essential facts, by which we trace the progress of mankind through the ages.

We cannot speak of the origin of art in an absolute sense, that is we cannot know of a certainty what emotions lead to the production of beauty nor can we name any particular country as the birthplace of any particular art, as every tribe and every nation contained within itself the seeds of those things absolutely necessary for primitive development.

Again we must remember that though through the years civilization has been and is progressive, and the tendency is ever onwards and upwards, there has not been any universal or continuous form of progression. This is particularly proven by the arts, which are a reflex of the age producing them. They show a tremendous progression from the time of the Stone Age but the advance has not been continuous nor regular. Some tribes and some nations have gone far ahead of others and

there have been lapses of hundreds of years when civilization seemed not only at a standstill but to be actually losing ground. This complication makes it quite impossible to establish a scientific history that will hold together different periods of culture in chronologically progressive series. We can study the productions of one tribe or one nation, through certain ages, or we can during historical periods compare the arts of various countries, but the civilizations of different nations have not always extended their influence into the nations succeeding them and we are often forced to pass over many years in our survey of the life of a nation.

It has already been explained that man's first effort after overcoming the elements in the most primitive way was toward decoration and it is probable that the human body was the first object adorned. All present day primitive people decorate the body. They scar and tattoo the body and bore holes in lips, ears and nose and are thus permanently decorated and they load themselves with girdles, bands, rings and pendants, which are their costliest possessions. Body painting is common in the lowest grade of culture and the only savage who denies himself this esthetic pleasure is the one who must clothe himself or freeze. Red has apparently always been the favorite color of nearly all peoples, especially for masculine decoration. Probably the first red with which primitive man

decorated himself was nothing less than the blood of man or beast which he had slain and the strong effect of red is due perhaps more to those old associations than to the direct impression of the color. Yellow is a color next in the order of choice but as a general rule all savages choose for body decorations a color that is in the strongest contrast to their skins.

Our knowledge of the patterns of body paintings is meager and we find writers repeating each other, vaguely stating that the designs were fantastic, strange, inexplicable or weird, all of which we can well believe, but we have gained no clear idea of what these first designs were or how they originated.

Among the Australian aborigines the scarring of the body was common. The scars made on various parts of the body were short horizontal and vertical cuts forming rows, the arrangement and the number of the rows differing among the various tribes. According to one tradition, "a spirit taught men the art of scarification and was then changed into a great kangaroo," from which we would infer scarification to have borne some religious significance. Among other tribes of the South Sea Islands this scarring was probably considered a physical test of courage, the one having gone through the test being no longer in any fear of bodily injury. While there unquestionably was originally some

religious or magical significance connected with the scarring of the body it eventually became little more than a means of identification of family or tribe, even though a religious symbol was chosen by a particular tribe as their distinguishing mark. However we may differ in our theories of the primal motive for so disfiguring the human body, we agree that whether as tribal mark or religious symbol, it was at the same time an intended ornament and the greatest number of scars among primitive people to-day bear a purely ornamental significance. It is rather difficult for us to imagine the delight with which the savage views his scarred body until we pause to consider the plesure a boy experiences in exhibiting a scar acquired in the course of his adventures. The experience may have been painful and the result to our cultivated eye repulsive rather than enhancing but there can be no doubt but that the owner regards the scar as a badge of courage.

While scarring was popular among dark-skinned peoples tattooing was the fashion among fairer tribes, and as it admits of finer and more varied designs it came into use among highly civilized people. The simplest designs, however, are quite like scars, short parallel lines on cheeks, arms and shoulders, and of their significance we know nothing. Among the Eskimos, women especially, we find more highly developed forms. The tattooing is put upon the face, arms, hands, hips and breast;

there appear oblique curves, fan shaped designs, parallel lines with rows and dots between, occasionally a zigzag line or a series of small rectangles. The Eskimo looks upon it as an embellishment, and mothers tattoo their daughters at the age of eight years, "for fear that otherwise they would not get a husband."

Among the tribes unacquainted with the methods of scarring or tattooing we find the permanent decorations consist of lip and ear plugs, which serve as tribal marks, and in the eyes of the natives are undoubtedly ornamental, though originally they may have been used to terrify the enemy. We know that among some savages bodily deformations were undertaken solely for this purpose, and other warlike tribes endeavored to make themselves dreaded by their foe by staining their bodies with ghastly colors, blood-red, black or brilliant blue.

Detached ornaments were also worn to make their appearance more frightful. The headdress of feathers increases the warrior's height and is worn in battle to impress, and in the dances to attract, quite as the scars on the body tell the enemy with what sort of man he has to deal, and in the festival gain the admiration of the women of the tribe. The tooth masks and various war helmets are typical specimens of the pre-eminently warlike decorations, and perhaps the highest development of art as a means of terrifying is to be found in the

decorated shields of the Dyaks. A grinning mouth with sharp tusks in both jaws, above it staring eyes surrounded by dark and light concentric rings, make a most effectual pictorial threat and invariably ornament the shield, while tufts of human hair, trophies of vanquished enemies, hang over the surface of the weapon. It is not difficult to imagine what effect such a grinning, ghastly apparition would have upon an enemy, how it might paralyze him with terror when confronted by it in battle, and though they do not terrify us as we view them through the glass case of a museum we cannot but be impressed by their weirdness, and feel a kind of admiration for the skill and psychological knowledge the primitive man showed in their creating.

The idea for these Dyak shields may have been borrowed from the Chinese or Indians who were so successful in producing the grotesque and horrible in masks and weapons. The requirements of war have called forth among all tribes of all times, qualities of power and grace and the physical type that has been reflected in artistic creation, and if you were to study the art productions of all the many warrior tribes you would find, regardless of difference caused by climatic and racial influence, that they all acquired common qualities. It is not, however, as we earlier hinted, easy to find many primitive decoration forms that are exclusively intended to produce a repulsive effect, and to the

savage eye, only a few patterns of bodily decoration especially, appear purely terrifying.

As man, the social animal, developed into a cultured being and began to take pride in his social status, body decoration lost much of its primitive significance and served to distinguish and separate ranks and classes. And there was the beginning of "caste caused by clothes." Among the most primitive people there are no ranks and so no distinctive costumes, there are no rich and poor and so no change in styles of decoration of the body; but when a ruling class came into being they desired some mark of distinction and created "style" and the lower classes not to be outdone invented more elegant forms of ornaments for themselves, which spurred on the skill and inventive force of those above and the merry strife of outdoing one another in the matter of decoration and clothing so begun among the savages, is still waged among our highly cultured and most civilized nations.

The desire to terrify and the desire to attract gave rise to the weird, the interesting, and often most artistic bodily ornaments and decorated weapons, and we have never succeeded in ridding ourselves of some of these same decorative forms that we look upon as so strange and repulsive in savage man. The savage has little use for clothing, so he paints his body in colors most attractive to his eye. Convention and comfort have taught us to

cover the body and so we invent styles in garments instead of designs for scarring or painting, and we paint only the face. In the form of movable ornaments we have not advanced so far but that we can trace their evolution directly back to the primitive ornaments; our necklaces and bracelets, girdles and pendants are no longer made of teeth, leather, feathers and shells, we have a larger and finer range of materials, and have learned to manipulate them skillfully, but we have not contributed much to the original stock of forms. In a sense the savage man's decorations which constituted his aids in life were not nearly so superfluous as the civilized man's, for they aided in inspiring fear as well as helping in attracting those of the opposite sex.

The decoration of objects is due to impulses that have been common to man from the most primitive to the most modern times, and which date back so many thousands of years that we cannot attempt to determine their actual origin. We know from study and from our personal experience that there are four requirements which the normal man demands and each one of these requirements in and of itself impels him to an artistic effort of some sort. It is difficult to arrange these four requirements in order of importance as they seem to be almost co-ordinate.

Possibly the first position should be given to the very apparent need in man to find some sort

of relation between himself and the universe. This is his religious need to which we must refer again and again in our study of the development of civilization.

Secondary to man's necessity for religious belief we find his desire for the possession of wealth, the outcome of a necessity for providing for the future and forming an accumulation which will give him power and influence over others. The desire for personal property and later the desire to increase its value naturally leads to the production of ornaments which in a sense are kindred of wealth.

Third on the list is man's desire for communication between man and man, tribe and tribe. This is obviously an absolute necessity for any degree of culture and cultivation, and with oral language and gesture unavailable his only possible recourse is to picture signs, from which grew pictorial or representative art and our present alphabet.

The most inclusive need of man which covers the three points already mentioned is his constant demand for beauty, for the sensuous pleasure of rhythmic movement, form, line, color and sound. This esthetic need we are prone to leave out in our attempt to be a practical people. Try as we may we can no more ignore it and look for normal intellectual development than we can stunt by lack of food or exercise one part of the body and hope for health or strength of the physical self. It

is a crying need of every normal individual or race and though we assign other causes as the motives for the origin of art productions we must after all our searching, wondering and surmising return to the thought that man is a potential god in the sense of his having within him the embryonic form of the highest creative intellect. Working in and through the most crude and inexplicable ornamentation we feel the esthetic impulse in man striving toward the expression of beauty for its own sake, which is a most significant phase of the highest type of civilization that the world has yet known.

The unsymmetrical weapon, it is true, is not as useful or accurate an implement as a symmetrical one, and an arrowhead or spearhead well polished pierces more easily and more deeply. Primitive man may, for these reasons, have first conceived the idea of finish for his stone implements, but among nearly all early peoples we find objects that are carefully shaped and polished without any evidence of the finer shape or finish adding in any way to their usefulness. Some of the pottery for instance would serve the purpose for which it was intended if there was no beauty of outline or symmetry. The soapstone lamp of the Eskimo need not be so regular or so smoothly polished. Baskets would hold the objects for which they were intended if made with less thought for form or design. There was an esthetic as well as a practical need to satisfy. The

object must be pleasing as well as useful and among the simplest people is found this ever present desire for embellishment.

The development of ornamental design in its relations to civilization is a subject that has not been scientifically studied, from the very earliest known productions, from the designs of the lowest peoples, through to modern ornamentation, though in a general way it has received considerable attention, partially due to the present popularity of the hand-made, home and school-made textiles, basketry, pottery and metal work. We have a careless way of saying that primitive designs are mostly geometrical in character and inquiring not at all into how they came to be geometrical, or whether they were really of such a character in the beginning. The truth of the matter is that primitive designs are seldom just what they appear to be to the ordinary observer, and the so-called geometrical designs had, at first, really nothing in common with geometrical figures as we ordinarily think of them.

Generally speaking, decoration does not tax the imagination for its motives but rather goes to nature for its inspiration and its forms. Look at your rugs, tapestries, vases and you will find flowers, waves, mountains and grasses have supplied the basis for the designs. Go to a museum and study the primitive decorations and you will soon be able to find the animal form from which some patterns

were evolved, for the lowest tribes have always been the most interested in animals, in creatures that live a life more nearly like their own and upon whom they so long depended for their very existence.

It is not always easy to discover the original form in primitive design and there remain geometrical patterns that we are totally at a loss to explain, and yet we feel justified in saying that they must have necessarily evolved from some effort at animal representation. Wherever ornaments of a tribe have been closely examined it has appeared that what to us seems merely decorative is for the natives of practical and non-esthetic significance. Like the body decoration, the carving on weapons, the painting on pottery, the woven plaited patterns originally were religious symbols, or tribal or individual marks of distinction or ownership. They were first practical and then decorative, and though in our zeal to understand we have undoubtedly attributed deeper significance and meaning to some symbols than they ever held for the native, it is beyond doubt true that we also err on the other hand when we take them for purely artistic compositions.

However they originated they did in time evolve into themes for decoration only, themes that rightly applied pleased the esthetic sense of man and so gave greater value to the object ornamented.

The art of the primitive man, we must remember, was at its best not creative in the sense we use the terms in speaking of art productions to-day. It shows nothing but a taste for decoration and his instinct toward imitation. It does not deal with large ideas or thoughts because he was incapable of such large mental processes; it is rather a handling and sorting of facts, a playing with the elements that later enter into the higher artistic creations. Imitation is one of the first steps in the intellectual life of child or race, and in attempting to imitate nature the primitive artist unconsciously discovered the constructive elements and principles of form, and then evolved the so-called geometrical patterns.

The serpent, the symbol of wisdom among many tribes, has furnished the basis for many of the waving line decorations; the anaconda is seen in the graceful curved bands marked with large dark spots. A fish has become a rhombus with its angles filled in with black. The popular zigzag which appears as an angular wavy line, or with each alternate triangle left in relief or emphasized by parallel lines forming a series of dark and light triangles, originated in the tooth pattern. It was very likely suggested by necklaces or girdles of teeth hanging against a dark skin. Draw a row of such a tooth pattern and another, and another; invert one beneath another and you will see how the diamond

or lozenge design came into use. In baskets, in blankets and on pottery you will find the herring-bone pattern.

Complete outlines of men and animals frequently appear scratched on clubs and weapons, and even woven into baskets and blankets, where they are necessarily conventionalized. The Eskimos carve bird heads on their knives, fishes on handles of various utensils and reindeer on the "Arrow smoother," and again, cut the entire implement into the form of an animal, and then again, they modify these forms with merely decorative themes. Small concentric circles seem a favorite design with them, and are undoubtedly evolved from the eyes of animals. Among these people we find the use of decorative motives not at all easy to trace to any natural form, but that seems to have arisen from their observation of the patterns naturally made in their textiles. Their decorations resemble figures produced by sewing, tying and weaving, but are never developed beyond the simplest textile motives.

This gives us a hint as to how the patterns have become so changed and varied. Beginning with animal representation by complete outlines, partial outlines, and outlines of parts only, the curved line, the straight line, vertical, horizontal, slanting, the angle, the dot, and spot, all appeared first in relation to the parts represented, then in

relation to the surface adorned and then in relation to each other. A slight change, a repetition, a combination and elimination, the addition of dark and light, of color and of hatched lines and hundreds of variations of one theme appeared.

Necessity demanded clothing, there followed blankets, baskets, and the invention of weaving emphasized a great principle, a truth of all invention and construction, namely that all form is dependent upon number. One in and one out, one over and one under; grass, twigs, spun flax, or wool, and a pattern is made. A little experiment for instance, two over and one under, and the design changes. Add color and it is emphasized; further experiment and innumerable figures can be outlined and made solid, though they will all lack the curved line. Now man began to make all his designs more symmetrical, he proportioned his patterns and balanced them. All nature had been giving him thousands of examples of proportion, of number in form, and he had been profiting, but when he saw so concretely that one slight variation in number could change the figure so entirely he observed more closely and began to systematize his work. In other words, to proportion it consciously and intelligently.

The arrangement of color in primitive work is a subject we can but touch upon, and in fact it is difficult to discover a leading principle in the

choice and distribution of colors in design. Nature has suggested many of the colors for the designs borrowed from her and in Australian snake skin designs you see a striking resemblance in color as well as pattern. Some tribes make use of but a very few colors and repeat some combinations such as red and white, or black and yellow; blue and black, and blue with other colors are favorites among European primitives, while the Australian seldom uses blue. First, the locality of a tribe may determine somewhat the choice of colors, as some pigments are more abundant in one region than in others, again, colors are often symbolic; and among Egyptians and Assyrians certain colors always were used for certain parts of the clothing and for special kind of ornamentation, and served in themselves as a distinctive mark.

We have briefly considered art imitative and decorative and cannot go far in our rapid survey of ornamental design without encountering the symbol in art. From belief in magic or in an unseen power sprang the art that later developed into highest forms in sculpture and painting. Wondering about the phenomena which surrounded him, reason stirred in the mind of mankind, imagination supplied causes which later developed reason cast aside. Man had to have some language to put into form the answers he was finding to his questioning, and this need and desire gave rise to a language whereby

each thing, material or immaterial, was recorded by signs or figures and so the symbol came into existence.

The sun, the moon, the thunderstorm have been depicted in every age by various peoples and usually with some mystical or religious significance; the sun has been represented by a circle, a cross or star within it, or with its rays extending outward from its circumference, a plain disc or crescent for the moon, and a zigzag line represents lightning. Divine powers and the change of day and night and of the seasons, were generally associated with the heavenly bodies; the power and beauty of the bodies of light impress the imagination of the savage; and the bodies themselves in time represent the unseen power, the deities, and so the religious symbol was born.

In time abstract ideas were represented in decorative art and Cushing in his study of Pueblo pottery says a singular but almost constant feature in the decoration of their food and water vessels is that of leaving open spaces between ornamental zones or planes, and the reason given him by Indian women who were making spaces with great care was that to close them was "fearful," that the space was left as the "exit trail of life or being," though none of them could tell him how it first came to be left open or why it was called the "exit trail." When a woman finished a painted earthen vessel she said it

was a "made being" and put beside it in the kiln food for its existence. If the pot is struck when on the fire the noise made is the voice of the associated being, and if it cracks in burning it is the cry of the being as it escapes from the vessel. Cushing offers as a possible explanation of the unjoined planes the fact that it is difficult to smoothly join a line incised around a clay pot, and when the band is put on in relief it is still more difficult, and so to avoid this trouble the savage left the ends unjoined, and when paint was used instead, the Pueblo imitated the incised ornamentation and then found a reason for it, and it became what has been termed "a myth of observation."

Animal forms are often representative of the departed spirit. Nearly all peoples have resorted to some kind of symbol to represent the idea, even Christian art has used a combination of the human form and the wings of a bird; and the Greeks used a butterfly while more primitive peoples represented the idea by such creatures as fruit-eating bats, crocodiles, lizards, sharks, and all these symbols are found in all kinds of decorative as well as representative art.

The beauty of plant life did not impress itself upon the mind of man until centuries after he had pictured animals and parts of animals. He was quite like civilized man in that the thing always present made little impression upon him, he,

perhaps, had to lose the view of plant life to become aware of its value, quite as we learn to long for the sight of things green after years of city life and we then see in the trees and the grasses, the streams and hills new beauties that were before passed without remark. Bright colors, of course, attract attention to flowers and leaves, and color and perfume make them choice objects for decoration, but the real beauty of form in plant life is something that makes little appeal to the savage or to the child; they must have their attention turned again and again to the subject before they can find any keen pleasure in the lines and designs in the flowers, the leaves and grasses. Some natives used garlands of flowers and leaves to decorate their bodies and their implements of festival occasions, and a custom among natives of British New Guinea of decorating their drums with green leaves, led to the association of leaves with the instrument, and in time they made the decoration permanent by carving leaf forms on the drums. Then it was natural that the beauty of the leaf outline should impress them and they varied it and used it on their pipes and other objects.

The belief in the magical cure of some herbs is a well known one, and that belief may undoubtedly account for some of the plant themes that have been developed from the first imitative efforts of the savages. If you will look through plates of designs, modern or ancient, you will soon

be impressed with the fact that no matter how much beauty food plants may contain they are seldom used for artistic ornamentation. We must, however, except the grape vine and its fruit, its graceful manner of growth, and its decorative leaves and clusters of grapes lend themselves to artistic treatment, and furthermore, its popularity is due largely to an appeal to other senses than that of sight.

Plant motives coming with a later culture development were chosen because they contained within themselves some inner symbolic meaning, and the lotus has, perhaps, entered more fully into decorative schemes than any other plant. You cannot open a book dealing with Egyptian art or mythology but that the lotus in some form is used in scenes illustrating a divinity or cult, and in Babylonian art, Assyrian, Persian and Indian, the conventionalized lotus appears again and again. It became a symbol of life, resurrection and immortality. It sprouted from a slimy bed but floated pure and beautiful on the surface of the water. The buds opened at sunrise and closed at sunset; every autumn it died its annual death and was resurrected after the winter had passed. It is impossible in the space allowed to trace from the natural flower through the conventionalized forms in border and other decorations, but it was developed into an almost infinite variety of detail.

Just as primitive artists separated parts of animals for representation and decoration, finding in them every line and every element for artistic creation, so with the flower, the flat outline showed the Egyptian and the East Indian the possibilities it held for variation and when a border was to be decorated they still retained the theme, but in applying it to an elongated and horizontal space they simply changed the relation of parts, eliminated parts and also combined them with other symbols. The seed cup of the lotus may have suggested the rosette which was so popular in ancient border and ceiling designs. The rosette, the scroll and the lotus flower you will see combined in various ways. It is not at all difficult from such an arrangement to see how a lotus motive of line and spots was derived, or to imagine why such was evolved from the decoration of pottery. But if you were to view the ceiling of an Egyptian tomb before seeing the earlier steps in the evolution you might fail to recognize the genesis of the lotus and scroll motives.

Just what significance the scroll had for the ancient we do not know, though the theories concerning its meaning are numerous; one is, that it is combined with the flower of immortality because it represents the wandering of the soul, but we must leave the subject of the evolution of plant design as all we here intend is to suggest to you the birth and early growth of design in ornamentation.

Beginnings of the Potter's Art

THE ceramic art was, like most others, independently discovered in various parts of the world, and among primitives to-day the only large groups to whom pottery is unknown are the Australians and the Polynesians. The art is so ancient that for long the invention of clay receptacles was counted as quite the earliest handiwork of man, but we now give precedence to the stone implements that were so crude as to be but little more than broken bits of stone, but which, nevertheless, show the intentional shaping.

To lap water from the streams is the way of the beast and was the way of man when he too roamed the earth without thought of shelter or food except for the passing moment. Until he passed out of the first animal stage of mere existence he had no need of a water carrier, but once he created the need he invented or borrowed the receptacle.

The timeworn story of how the use of clay was suggested, we repeat. Once upon a time, when and where no one can tell, our savage ancestor in

going perhaps to a stream from which he could quench his thirst, found that his feet sunk into the earth which had been moistened by rain or flood. Another day the hollows so made were dried by the heat of the earth and the sunshine, and still another day he found them filled with water and the water remained in them for long. There again was accident that gave man his clue. He found moistened clay and imitated the bowl-like depression made by his heel by shaping the clay in his hand, then baking it in the sun and so the art of pottery had its birth.

We have only one, to us, more plausible explanation of the first use of clay. As a utilitarian art pottery is more ancient than that of basketry. Basketry as a developed art among the rudest tribes has always been the forerunner of artistic clay work. Now, whether the crudest clay objects were made before the first interlacing of boughs for shelter, we doubt, and we have in traces of ancient huts evidence of the knowledge of both intertwining of twigs and the use of clay as cement. Among the ruins of a Swiss lake village that had been destroyed by fire have been found fragments of clay which the fire baked and preserved for us; they are smooth on one side but on the other are marked with deep impressions of the crossed and interlaced boughs. As far as we know this is the earliest evidence on the so-called wattle work and of the combination of weaving and clay. Certain beasts and birds make

use of clay for the cementing and making secure of their habitations, and it seems a little more within the realm of reason to suppose man used the moistened earth in some similar manner, and then discovering its quality and its possibilities as it hardened and retained its shape, he put it to other uses.

The earliest tribes were hunters and fishers and so they invented weapons to kill their prey and they invented utensils to assist them in preparing the flesh, the skin, the bones, and every part of which they could make use. In time they used the skins, bladders and stomachs and even the large hollowed bones as water carriers, and they imitated these in clay when they later were familiar with its use. Then came the use of the gourd which served well except when it must be carried, and a coarse sort of wicker work was made, the gourd encased and thus more easily transported. This invention of encasing the gourd that it might be carried or hung led to the development of the wonderful watertight baskets of some primitive tribes, and the typical gourd form is one with which we are all familiar in pottery, but it was undoubtedly an invention of a rather advanced culture period.

Among the Pueblos basketry supplied the place of pottery; food was boiled in those marvelous baskets, meat was roasted on loosely-woven trays that were coated with pebbly clay, and when they did make clay vessels they copied the basket forms.

The coiled clay receptacles were probably the result of an attempt to copy a boiling basket and to use it as a model form. To mould the clay inside would not be possible in a small-necked vessel and the next best thing was to model it on the outside; then to make it resemble the basket work the potter formed a thin rope of clay, exactly as children do to-day, and coiled this around and around the object, the coils adhering to each other by a little pressure, and the result was not at all unlike the coils and stitches of the basket work. A later method was that of pressing moist clay into the bottom of a hemispherical basket until it projected a little above the basket mould, and from that point it was built up spirally with the coils until the desired shape had been reached when it was pressed and smoothed.

But about the forms made independently of basket work; in some of the primers to-day, primers that contain matter of more human interest than our "cat on the mat" kind of a generation past, our children read that man first made clay bowls and cups, rough and almost shapeless, but that would hold water, and then he turned to nature for a better model and straightway copied the gourd. We do not quarrel with the writer of the primer for his object, of course, is not to trace step by step the evolution of pottery and he can well go by leaps and bounds to cover ages of arduous toil and slow

progress, but we do marvel that so many historians of ceramic art begin with quite the same statement. If it were true then our theory of animal imitation as the order of representation and decorative art does not hold good in the development of the potter's art.

When it comes to form in art, man cannot, try as he will, invent anything new, every type, the cube excepted, he has borrowed from nature and he can but vary, combine and perfect. Before he puts his stamp upon it an object in nature may be of little use to him, but before he actually creates an object he makes over the natural one to serve his purpose. Everything in history and in prehistoric evidence points to the fact that animal life first interested man and we need not repeat what already has been noted along this line. Would he turn to a plant to find forms when in the sea food and the beasts he lived upon he found the very things he needed, and except where the potter's art developed very late would he copy a fruit rather than the objects in which his interest centered? Of course, the first clay objects were but sun dried and except in some localities there have been left but few traces of the first attempt of a tribe to work in clay. We have, however, found in mounds of the Mississippi Valley innumerable clay vessels made in imitation of both salt and fresh water shells. The clam shell seems to have been a favorite; the forms were

slightly or greatly varied and some were decorated, but through all the type form can be traced. The ornamental rosette which adorns many has been derived from the spiral of the conch shell.

We, of course, do not wish you to infer that we believe all animal forms in primitive pottery preceded the plant forms or that there was any utilitarian origin for all vessels of animal form. We know that religion and magic are responsible for many, and again that mere fantasy came into play and created beasts and birds that never were on land or sea. What we do contend is, that the first intentionally designed pottery was made in imitation of some natural container without regard for beauty, and that the object copied was some form of animal rather than plant life.

During the Stone and Bronze Ages the potter's wheel was a thing unknown, all work being done by hand. The foundation or body was usually very coarse, often contained sand and pebbles and the resultant objects were used for kitchen purposes, but in the graves and burial mounds have been found jars of clay carefully prepared. The ornamentation of pottery in the Stone Age looks as though it were made by pressing the finger or nail into the moist clay and occasionally a twisted cord of clay was applied. The lines were nearly all straight; if curved the drawing is badly done, the curves very irregular. In the Bronze Age spirals

and circles were popular and then in the last of the four great production ages, the Iron Age, the styles in pottery decoration changed and we find pictures of animals and occasionally of humans painted or incised, or both, on the curved surfaces.

As we proceed with the development of the nations we will try to show somewhat of the development of this important art, but cannot longer dwell upon the subject at this time or touch upon the various methods of moulding; the vessels moulded over wooden and basket forms, the support of wicker or net work that influenced the shape and design, or the manner of pottery decoration, which is intensely interesting and valuable to the student of ethnology as well as of civilization.

THE intertwining of flexible boughs to form a shelter may have been the origin of weaving, which developed so rapidly and to such a high degree of perfection. Mats of shreds of long leaves and of grass have been made by nearly all people. At first only rectangular mats and rectangular patterns were created, varied by comparative width of strips, by number woven in, under or over, and by color. Then by placing material in a spiral and weaving strips into a new form of mat new basket shapes were suggested and decorative patterns became more varied. The designs that

resulted from the experimenting in interlacing were copied over and over on pottery and on metals.

Natives attempted to imitate natural objects in their weaving; they were, of course, without the curved line, then the variations of weaving made of themselves symmetrical and pleasing although rather monotonous patterns, easy to reproduce on clay or on metal, and the innumerable designs on objects made of these materials again confirm our theory of an earlier development of basketry; and the use of metal especially, only increased the number of plaited and twisted things. The ease with which designs could be created in woven materials and the many uses for the woven cloths and baskets made the interlaced pattern almost the only one for a long period among the savage tribes. They carried this art to high perfection as the examples in our museums attest, and not only wove the designs into fabrics but varied them and applied them to the woven cloth by painting, stamping or printing, and the results were most admirable. After studying the patterns in the various textiles of primitives we feel the geometrical design and its variations have been about exhausted and the work represented is so fascinating that we do not marvel that the tribes were long held by its thrall until the esthetic mind became set in "angularities."

Written Language

WE HAVE already spoken of art as a universal language, using form, line and color as its medium of transferring ideas; and have touched upon the use of pictorial signs as indications of ownership and of membership in a tribe. In order to convey information from man to man and from tribe to tribe something more than oral and gesture language became necessary, and here again the need was the mother of the invention of picture writing, which passed through many progressive stages until finally modified into the perfected Greek alphabet.

The subject of picture writing is perhaps of even greater interest to us than to peoples of other countries because nowhere in the world are picture writings more numerous than in America. To understand them one must first have a knowledge of the habits, the dress, even the hair arrangement and the bodily decoration, tribal history and traditions, as comparatively few of the North American Indian picture signs have become merely conventional. In one tribe, however, all Indians draw the

same sign in exactly the same manner, showing an agreement upon the form and meaning of a sign. Songs are recorded, that is, the order of the stanzas is suggested, as well as stories of battles, treaties, discoveries and seasons of plenty or of famine. Another kind of picture writing serves as notification of departure of a tribe or of a chief and his warriors, of direction or warning, of need of assistance or of command. Then there are the totems, the clan designations and funeral picture; the mythological and magical picture, the daily life of the natives picture, the historical and biographic writing.

The first pictures of a tribe are the actual representation of objects, then follow the use of symbols which suggest ideas, and later sounds are represented instead of things, and then syllabic signs which stand for articulation of which the words are composed, and the final step is to the alphabetical signs or letters representing the elementary sounds which combined form the syllable. From the thing to the sign is, and always will be, the method of intellectual development, but it is a truth and a principle that is frequently forgotten in our attempts to interpret the arts of man, too often ignored in our methods of educating our youth, and whenever we do fail to take this natural method into account our "education by development" becomes of itself a mere empty phrase which sounds well and means nothing.

Trace the processes by which an alphabet has been developed and you find that the less the picture became like what it originally represented the more useful it became as a symbol for conveying thought, and that the utilitarian made the esthetic side of picture writing recede to the background.

The Egyptian hieroglyphics were most decorative, theirs has been called "the most beautiful writing in the world," but they stopped just the other side of the final stage, for in 4000 B. C., though they were in possession of an alphabet, they failed to make independent use of the signs and added a picture or symbol to explain a word when it was written and that in turn was further explained. Fortunate for us they did this for it gave us the key to their picture writing.

The Japanese looked upon writing as they did the fine arts and many masters of Japanese painting owe their fame not less to their writing than to the pictures they created. They learned the art from the Chinese, whose language is essentially monosyllabic; the Japanese simplified it and invented one of the best syllabic sign systems ever constructed, but they never developed the syllabary into an alphabet of elementary sounds.

The Greeks learned from the Phœnicians, who in turn had developed their alphabet from the symbols of the non-secular writings of the Egyptian

They were not so trammelled by traditions nor religious restrictions, their language and mode of thought was more progressive and so they dared to cast aside the superfluous explanations of ideograms. The Phœnicians were a commercial people and needed a simple method of transacting business. The Greeks borrowed their alphabet as they borrowed from others their art forms, but so transformed and perfected both that we scarcely think of them as copyists in any sense of the term. The phonographic writing now developed into the use of signs to represent a sound, giving us simple and few phonetic elements capable of indefinite combinations.

Again, we see that a form that was sometimes most decorative arose from desire to appease the esthetic sense, but whenever those same signs or pictures were arranged to accord with the lines and spaces of a surface as, for example, the Egyptians used them, then they became elements of artistic design. The Babylonians, without regard for spacing or harmony, cut their hieroglyphics into their sculpture, often directly over the figures of the relief, showing their one object was to convey some meaning other than the picture expressed.

From the picture writing of the American Indians developed symbols that appeared on pottery, baskets, blankets and weapons. The symbol, as already noted, followed the use of a representation

of the real figure; it is not as obvious, is more suggestive and hence indicative of a second stage of culture. For example, the symbol for war was the tomahawk if in a certain position, or of victory if in another; the pipe a symbol of peace; closed hands of friendship; the tortoise a symbol of land. These were used alone as symbolic ornament though they originally were a part of picture writing. Then again, a symbol was transformed into a conventionalized emblem quite as has been suggested by the transformation of animal or plant motives, as you will read of again in the arts of many lands. The popular Swastika, for instance, was a development from a sun symbol, the morning, midday and afternoon sun represented by the three legs, but it gathered unto itself other meanings as it journeyed in different lands through different ages. In the third century B. C. it appeared on the coins of Lycia and of Sicily and was there a symbol of the three sided or three pointed land Trin-akria, "Three Capes," the ancient name of Sicily. It appeared on armorial bearings in Germany, England and Switzerland with the three legs clothed in armor and spurs added, relics of the crusades. To-day we find it on pins and bracelets, on leather work and woodwork, and simply call it a good luck sign and are content to let it go at that.

THE foregoing cursory review gives us some idea of the beginnings of human development, a complete story of which will probably never be written for it is not conceivable that enough material will ever be brought together to justify an accurate accounting of those numberless years. Constant researches are being made, but the time that has passed is so measureless, the changes that have taken place so great that we can never hope to secure anything but the vaguest outlines. Comparative study shows us that the stages of development are as we have outlined them.

We now turn to what constitutes written history and will trace it by means of the picture writing of the Egyptians, the clay records of the Chaldeans and the primitive alphabet of the Phœnicians. We will survey the Greek nations, the triumph and decay of Rome and step by step advance through the centuries to our present day civilization. Compared with the time spent by the human race upon the earth these years are but few, extending from about 5000 B. C. to the present time, but they are rich and wonderful in achievement.

Egypt

WE must of necessity turn to the East for a beginning of our survey of art as it is known to history, the East to which we are, generally speaking, indebted for our letters, philosophy, religion and science as well as art. Egypt, the country oldest in history and civilization, is the first to claim our consideration, for with but few exceptions the earliest surviving works of the hand of man are those found in the land of the Nile, the land of mystery and romance.

The real Egypt, as you know, consists simply of the valley of the Nile, but in a study of the growth of its culture we will find ourselves travelling over the vast desert and through both Upper and Lower Egypt which together comprise the Nile and the land on each side watered by the main stream, its branches and canals; and occasionally even venturing into the almost unknown regions adjoining it.

It is not surprising, when we consider the geographical features of the country, that the civilization of Egypt should have preceded that of most other countries. The annual overflow of the Nile

resulted in making the land so fertile that the necessities of life were procurable with the least possible effort; conditions also favored trade with neighboring nations and navigation by river and sea was easily effected. The country became comparatively wealthy at an early date, easily outstripping its neighbors where less favorable climatic conditions prevailed and where hard, long continued labor won but scant and precarious return from barren soil. As a consequence, in Egypt there arose a leisured class who were enabled to develop commerce, science, religion, art. During the high tide of the Nile, laborers could not put in their time in agricultural pursuits and the autocrats and rulers seized the opportunity and forced the subjects to work upon the erection of palaces, temples and pyramids.

Our sources of information concerning Egyptian civilization are various. Archæologists have brought to light remains of different periods. Philologists have shown us how the language developed from mere picture writing to the hieroglyphic writings, and have even found a key to their meaning, enabling the reading of the history of the land as illustrated on the walls of temples.

In 1865 an explorer discovered a wonderful genealogical sculpture which settled for us chronological sequences before only guessed at. In the temples dedicated to the gods were found hundreds of inscriptions giving us a clue to the line of rulers,

their deeds and successors; and many cartouches or oval plates with titles and names of royal personages verify the lists otherwise obtained.

We have also Menetho's history of Egypt, now considered authentic. But though we ask the aid of the philologist, the scientist and historian for many explanations, we can trace Egyptian civilization, its rise and fall through its architectural forms, through the decoration of pillars and of temple walls, through various types of pottery and through the design and workmanship of its numberless articles of ornament and use. Hence the archæologist is after all the real historian as he furnishes the larger part for others to work upon.

In the last fifteen years discoveries have been made which require a rewriting of the history of the earliest stages of Egyptian civilization and there is reason to believe that the researches of the future will add many facts that are still needed to even partially complete the now altogether too uncertain sequences of development.

Prehistoric Egypt

LIKE all nations Egypt had her dark period of mist and gloom, her prehistoric time, and up to the present day we have not been able to penetrate very far into that twilight period, although the researches of each archæological expedition of the past decade has enabled us to understand a little better the stages of development of the primitive Egyptians.

In the legends and myths which came down through the ages we cannot find any real groundwork for history but must, as always, turn to the first material evidences of human habitation. The climatic and physical conditions of Egypt are favorable to the preservation of hand work but even so, only a comparatively few relics of the earliest period have been unearthed. We speak now of the Old Stone Age of which period we have numerous evidences in various parts of Europe, both in stone implements and drawings upon the walls of cave dwellings. The only proofs found in Egypt are the roughly worked flint implements which have been gathered from the surface of the desert.

No one knows how old they are and the use of some is but conjecture. They vary in size from those of three inches in length to those of ten inches. Some are rounded at both ends, others seem to have been roughly knocked off a large stone and but one small part afterwards shaped crudely, for what use we cannot tell.

Since we can read only a part of all that those queer relics are trying to tell us, we must take that part and see if it connects with the products of the next period of which we do know more.

Egyptologists speak of this period as the prehistoric. We only know that some hundred years before the first historical dynasty, usually given as 3400 B. C., there was a race of people occupying the Nile valley from the Delta throughout Egypt proper into Nubia, and that these people were related to the Arabs and the Berbers, a primitive race of North Africa. Were these people of the New Stone Age descendants of those who left the Old Stone Age relics, or were they invaders? Did they come as conquerors into this valley and make use of the progress made by the primitive race already there? We cannot answer these questions. We can only examine the Old Stone relics and compare them with the relics of the next known period and continue to wonder if there were unproductive years between, but from there on our story is more connected. We have found other materials

fashion into tools with less arduousness, and the work the flints represent is a lost art, so it is difficult to imagine how they produced them and how much skill was required. You will find no decoration upon these early examples but always an attempt at symmetry.

In the stone vases it is easier perhaps to find a desire to express a love for beauty. They are made of the hardiest of materials, of basalt, porphyry and of softer stones also, alabaster and limestone. Later came those of slate, of colored limestone, and at last diorite, which continued to be a favorite material down through the centuries until the age of the pyramids. Among the earliest type of stone vases is the standing form modeled with a base or foot as it is called. This has no hole pierced in it and was intended only to stand. The later stone vases were nearly all made with the hole through which was strung wire or string for the purpose of suspending or carrying the vessel. These suspended vessels and jars were often cut out of colored marble or basalt; all the work was done by hand. Looking at the picture or even at the vases themselves we cannot detect the polished lines crossing diagonally on the curved sides or the slight irregularities. Until we can carefully examine them, turning them about in the hand and allowing the fingers to be our eyes we do not appreciate the careful workmanship required to produce such vases entirely by hand.

We know very little concerning the dwellings of these early people, they left but scanty traces and so we conclude their habitations must have been of a very primitive type of construction and not built to last for centuries as were the habitations of the dead. All through Egypt and Nubia on both banks of the Nile burial grounds have been found. If these prehistoric people had not given so much thought, care and skill to the preservation of their dead we should still be in the dark as to much of what is now accepted as evidence of their study of civilization. These finds were made only a few years ago. In all probability some kind of a monument, perhaps only a mound of earth, at one time marked these graves for in all later periods some form of grave superstructure is considered essential. The soil and climate of the Nile region contain preservative qualities that have kept many of these bodies in almost perfect condition although the art of embalming which was later developed to such a marked extent was not practiced at this early date.

It was from graves of this kind that proof beyond question of physical and racial characteristics were found which identify this prehistoric race as that from which the historic Egyptian descends. The instruments and utensils buried with the bodies in these graves show that even those primitive people living thousands of years before the beginnings of history had a faith in a life hereafter and

like nearly all primitive races, made preparations for a future life in which there must be provision for bodily needs and protection. The linen in which the bodies were clothed tells us of a knowledge of weaving, the adornments, of the knowledge of the use of gold and copper, and all are prepared with more skill than are the implements and adornments of the European New Stone Age.

The pottery, modeled by hand, is wonderfully well executed and in the opinion of many not equalled in later historical Egyptian periods. We have earlier noted the importance given by historians to the pottery of various peoples and will find in Egyptian pottery material for serious study, as it reveals much interesting data concerning the lives and customs of the people and furnishes a key to their development. The recent excavations prove that pottery in Egypt was antecedent to any form of written language. It is now generally conceded that up to the first historical dynasty, 3400 B. C., there existed no kind of written language, and during that period the earliest inscribed monuments are so very primitive in character that they clearly mark the very beginnings of writing.

The Egyptians attributed the beginning of the art of pottery to the gods, which would prove beyond doubt that it was in use before the historical period. The Director of the Spirits of the Universe first exercised the potter's art and moulded the first

human being with his hands. He had previously made the heavens and earth, the hills and streams from whence sprang the terrestial gods, and had hung the sun and moon between the earth and the azure vault, which he had formed in the shape of an egg. Man was the last of his products, and him he moulded out of clay and in his nostrils breathed the breath of life.

In the early prehistoric graves have been found bowls, conical cups and jars, usually with plain brimless edges. They were made of a soft body or foundation faced or coated with a mineral called red hæmatite. As the Egyptians usually baked these vases mouth down, the brims became covered with ashes and were consequently not burnt entirely through. In this way the red peroxide of iron was changed by the heat to a black compound and the inside of the vessels is also black due to the gases from the ashes below. The result although in a sense accidental is effective and interesting.

In the later prehistoric period the pottery is of a coarse reddish yellow clay containing bits of pebbles which give it a white speckled appearance. Brims were now more usual and a variety of forms appeared; double vases, square bottles, fish and birds. As all the pottery was made by hand without the use of a wheel it required but little development in skill to create a variety of forms and satisfy a growing desire for representation. The earliest

decoration of vases is done by means of a thin, white clay paste. The first decorations consist of lines and patterns copied from basket work. This method of decorating the red surface is still used by mountain tribes of Algeria and the patterns are closely similar to those of the ancient Egyptian pottery.

There have now been enough specimens collected so that even in these prehistoric stages students have been able to mark the successive steps of development and make divisions, such as early, middle and late pre-dynastic periods. The decorations of the latest specimen shows boats carrying flags and standards. These suggest that although at the time of their production the people as we know were scattered throughout the country without any degree of centralization, they must have gradually become grouped into a number of distinct tribes or communities. It is only reasonable to conclude that the standards with their emblems were those of local chieftains and that from these early tribal communities grew the "gnomes" or provinces of the first dynasties.

Historic Egypt

WE have now come to a discussion of historic Egypt; Egypt as a united country with a central government; the Egypt we find partially recorded in written history. In treatises upon Egyptian life we frequently find the different ages spoken of as Memphian, Theban or Roman. A word of explanation will make these terms clear and the dates given now will save us many repetitions later.

The kings who ruled over Egypt are grouped into families or dynasties. Each dynasty chose its seat of government and if Memphis was the capital the period of rule of that dynasty is termed "Memphian," as naturally the capital was the center of culture. If, however, the dynasty was not native but came in by conquest it took the name of the conquering country, as the Greek and Roman dynasty. Historians have grouped the dynasties into four great periods according to the stages of development:

I. The Old Empire.
3400 B. C.–2000 B. C. Includes 1–6 dynasties.

II. The Middle Empire.
2000 B. C.–1600 B. C. Includes 7–17 dynasties.

III. The New Empire.
1600 B. C.–1110 B. C. Includes 18–20 dynasties.

IV. The Later New Empire.
1100 B. C.–332 B. C. Includes 21–31 dynasties.

Then follows the Greek dynasty, under the rule of the Ptolemies, 332–30 B. C. After the death of Cleopatra, Egypt became a Roman province until the Mohammedan invasion in 640 A. D.

The Old Empire

THE earliest monuments of the first historical period show that hitherto separate tribes had become merged into two loose organizations known as the Northern and Southern kingdoms. Under Menes, the first historical king, the north and south kingdoms were united and with this union began Egyptian history, about 3400 B. C. This consolidation was recorded in several ways. It is represented pictorially on the temple walls and on the thrones of royal statues by the union of the lily and the papyrus, symbolic plants of upper and lower Egypt. We also find royal titles commemorating this event, for Menes was called "King of Upper and Lower Egypt" and "Uniter of the Two Lands."

We are still dependent largely upon contemporary remains for much of our information but also now have recourse to later documentary works such as the history of Egypt by Manetho, a priest, written during the reign of Ptolemy I, 305-285 B. C.

We agreed in a previous chapter that art is an expression of the thought and feeling of a people and so must harmonize with existing conditions. In

order, therefore, that we may really understand the life of Egypt and before we have any right of criticism for or against the Egyptian we must know something of all that conditioned his work. To thoroughly understand a nation one should mentally adjust himself to the physical environment, to the social surroundings, to the religious views, and attempt to imagine the effect of all these upon the minds of the inhabitants.

First let us look at the land. Contrasts the psychologists tell us awaken thought. Egypt has always been a land of contrasts. Here lies the vast sterile desert and there the most prolific verdure of the narrow river valley, and again there are the illimitable level lines of cultivation bounded on either side by desert plateaus of limestone strata rising hundreds of feet. Another condition to be considered is the brilliant, almost overwhelming, sunlight. Could the extreme contrast between desert and cultivation help but give tone to the expression of a people who lived in a garden spot and had in sight on either hand boundless wastes without life or verdure, the abodes of evil spirits in the shape of wild beasts and nomads who were ready at all times to rush upon the unprotected fields and cattle?

Where in his art does the Egyptian show this influence; where does he show that these contrasts awakened in him a desire to understand? We

find it reflected in the proportion between the vastness of his architecture and the minuteness of its detail; the most gigantic structures are crowded with delicate sculptures and detailed coloring. Nowhere does this elaborate sculpture interfere with the grand mass of the monument. The name the Egyptians gave to their public monuments, "firm things," expressed as did all their architecture, their admiration for the qualities of strength and stability. Even their statues though painted in lifelike colors where the material was hardly seen, were made to endure.

In their best work, before foreign influence began to degrade their art, we find no romantic sense of beauty which as we shall see from the architecture of other peoples, sometimes tends to exceed the limits of stability. There were no false structures. The Egyptian sought truth and justice and though according to our Twentieth century standard he failed to inculcate these virtues into his life, he at least expressed them in his works. Huge blocks of stone he used where another might have substituted something less substantial, as they were often entirely hidden. He was fair and honest in his building and knew or permitted none of the tricks and paradoxes of architecture which we moderns know. He had not the fine sense of unity later developed by the Greek but as he understood it, he expressed it. In the early monolith columns and

pillars we find him proclaiming that what supports must not in itself be divided. Even the decorations show a subordination of parts to the whole, for single schemes of wall decorations were used to illustrate the use of every part of the building. As we study the typical art of each dynastic age we will see that the Egyptian's work is an expression of his being and communicates to others his sense of things, his best feelings and his longings for greater understanding.

This places Egyptian art upon a high plane of reality for nowhere in the earlier ages does he attempt to depict any false aspirations, or become a mere copyist or mechanical artisan. When we consider the elements which conditioned his work we will find that he expressed strength, permanence, majesty and harmony but that he had no thought of humanity and not the slightest conception of the rights of the individual. He impressed his character upon all his work and so fulfilled the law of life as fully as any race that followed him.

All through Egyptian history we find this exemplification of an attempt to solve her problems, to harmonize contradictory elements. This problem we find visualized in the sphinx, itself a riddle, an ambiguous form half brute, half human. It is in a sense a symbol of the Egyptian spirit. The human head looking out from a brute body symbolizes the spirit as beginning to emerge from the

merely natural and physical, although not entirely free from nature's fetters.

The Egyptian edifices are half below, half above the ground and the whole history of the nation is a record of a people trying to reconcile the realm of the living and the realm of the dead, trying to explain away the contradiction of spirit and nature, trying to view things in right relationship, but the very lack of all perspective in their pictures, which we will later note, proves to us that their struggle, though not in vain, did not bring its reward to them as a nation.

The Egyptians seem to have had all the stirring, urgent impulses to do and to know but ideas were still imprisoned, in spite of the impulse and effort to realize self in expressions of various sorts, and consequently there never arose any real free consciousness of existence; this explains why no real national literature ever developed. The strong natural forces, the Nile and the sun, really determined their fundamental conception of the essence of being. The definite physical cycle which the Nile pursues and which is connected with the course of the sun, undoubtedly gave to the Egyptian the basis of thought and religion.

Very few students of the subject have even attempted to solve the deeper symbolism of the Egyptian gods and emblems but most agree that the limited view of nature witnessed by the Egyptians gave the principles of their religion.

Conceived under human forms the Nile and the sun constitute the divinities, and the course of nature and mythological history is the same. Osiris represents the sun and the Nile. Osiris is born and is killed by his brother, an enemy Typhon, the burning wind of the desert. Isis, the earth, from whom the aid of the sun and Nile have been withdrawn, yearns after him; she gathers the scattered bones of Osiris and raises her lamentation and all Egypt bewails with her the death of Osiris in a song "Maneros," it being the only recorded Egyptian song. Hermes now embalms Osiris and he becomes judge of the dead and lord of the kingdom of Shades. To Osiris and Isis the Egyptians ascribe the introduction of agriculture; to Osiris the invention of implements, civil order and religious ritual, who thus placed in men's hands the means of labor and secured its result. Osiris is also the symbol of the seed which placed in the earth springs from the soil toward the sun.

Beside this fundamental conception we find several special divinities and many lesser gods. Fire and its use appear as Phtha or Knef, also represented as the good genius. With the god Ammon was associated the determination of the equinox and he it was who gave oracles. Hermes exhibits the spiritual side of Egyptian theism. Anubis, friend and companion of Osiris, stood for order. He invented science generally, divided the day into

twelve hours, and was also the first law-giver. He was the first instructor in religious observances but notwithstanding all these spiritual attributes this divinity was something quite other than the god of thought. He was represented with a dog's head; he was thus limited and degraded under physical symbols. Ideals and matter were not distinguished from each other, and so arts and appliances of human life were not developed and arranged in any logical way. Medicine was subject to superstition in the way of reliance upon oracles and magic. The courses of the stars were studied but their astronomy was essentially astrology.

Egyptian worship was chiefly nature worship and especially animal worship, for they took the same view of the life of animals as they did of the manifestations of the Nile and the sowing and germinating of seed. While the thought of the worship of brutes is to us repulsive it is nevertheless indicative of a higher grade of thought than that represented by the worship of the sun and stars, for in the brute world the Egyptian recognized a hidden and incomprehensible principle. He felt that all life, even the life of an animal, was something to be respected. The impulse to know awakened his sympathy even with brute life. He had not yet advanced to the thought of the human being's complete mastery over nature, much less to any conception of human freedom; he only vaguely

worshipped life shut up within and, according to his conception, dulled by the physical.

This worship of animals was carried to excess under the forms of a most stupid superstition and the reverence for brute beasts was extended to the limits of severity. The killing of an animal in some districts and at certain periods was punishable by death. Human beings were allowed to perish by famine rather than that a sacred animal be killed. Each district had a brute deity of its own which was accorded all the deference and reverence conceivable and which after death was embalmed and entombed with the utmost ceremony. This reverence for the life principle in the body of the animal is repeatedly shown in the Egyptian hieroglyphics where the heads of animals are constantly joined to human bodies.

All of the ruins of Egypt go to prove that the Egyptian was constantly striving to detach his real self from natural forms. This people at the dawn of a spiritual life was not able or content to rest in the mere observation and contemplation of things but was impelled to present their view to external consciousness; to visualize their beliefs by means of art. The Egyptian was puzzled by life and its meaning and labored to solve the enigma by gaining through his products a clearer objective view of himself. This is the distinguishing feature of his work in its best stages. It was not amuse-

ment, or pleasure, or splendor, that he sought. He was urged on by an impulse toward self comprehension and was working out his thoughts in stone. His monuments were his enigmas, his questions. The Egyptians who raised a mighty empire have left a history of achievement in works of art greater and more lasting than other works of ancient time. They were the first to express the thought that the soul of man is immortal but their infinite care in the embalming of bodies shows us that they had not arrived at the idea that the spirit had an independent existence.

The study of Egyptian mythology is interesting and explains many of the works of art, for art is ever the outgrowth of the thought and religious experience of a people. The productions of the prehistoric age in Egypt show the beginnings of artistic ability but were on the whole more mechanical than beautiful. The treatment of the hardest materials as seen in the perfectly formed vases was most masterful but the observation of animate forms was only in a tentative stage. Usually feet and hands were not attempted, the arms and legs ended in points and the lower part of the body and the legs were frequently omitted, a sort of peg finishing the figure. When an outline was intended to convey the idea of a solid the fact was indicated by covering over with parallel cross lines to show that it was impervious to light. All countries have their symbolic

stage of art and this seems to have been the beginning of this stage in Egypt. The figures were intended to convey ideas and little regard was shown for the real character or appearance of the forms portrayed. The drawings of the cave dwellers of Europe show a much finer sense of form.

The first dynasty seems to have brought new influences to bear on all forms of expression. There was more spirit shown. The clumsy figures of prehistoric times were transformed and became full of character and life. While the art of glazing had been discovered and was in use for many years previous, the historic Egyptian put it to new uses especially in his architecture. There arose a need for more perfect symbols for the recording of ideas and the hieroglyphics were developed; along with this came a desire to portray animals and men more nearly like the originals. Anatomy was studied; in fact, anatomy seems to have been a ruling thought for a time and its study to have made up for the ages of clumsy drawing and carving that merely represented an idea regardless of accuracy of form. The Egyptian of this time over emphasized the precise placing of the muscles and never allows you to forget that under the robes in his drawings and sculpture there are bones, joints and muscles.

No one can complain that this early Egyptian spoiled his product by catering to the conventional. Life was new, there were no conventionali-

ties, past or present, to interfere with his expression, no tradition of what should or should not be done. He made his own rules. With little or no stored up knowledge he went straight to nature, observed the things about him and the result is effective; far more so than the Egyptian art of a later date. It is simple, dignified and truthful and no matter what its limitations, is the expression of a new and intelligent interest in life.

These early Egyptians worked deliberately and with great precision, and in several instances we find their products were executed not to tell a story, nor merely to decorate, but clearly for the sake of their own beauty, and there we find the beginning of the real development of the fine arts. All before was representation for other purposes, here we have examples of art pure and simple.

All relics point to a time of rapid development under Menes. We no longer find the simple graves of the pre-dynastic period but now they are larger, have roofs of wood or roughly worked slabs of limestone, and are lined with sun-dried bricks. Pre-dynastic forms of pottery survive in limited numbers in these early dynastic graves, with new distinctive types which predominate. Among the new types are numerous glazed figures in pottery of animals and women. Everywhere now are evidences of a great forward impulse, the power of the throne was vigorously developed and the wealth of

the country increased. Troublesome tribes were driven beyond the frontier. Subjects by the hundreds were sent to work the copper mines. Building operations were begun on a more extensive basis. The glory of a chieftain might be perpetuated in a more or less pretentious tomb, but the life, the accomplishments, the valor of the king of a united land must have a grander and more impressive monument that would stand through all the ages as a witness to his power. These monuments are the gigantic pyramids which in size and accuracy of workmanship have never been surpassed.

The first known pyramid, called the step pyramid, was built at Sakkara during the third dynasty by Zoser and another built during the same family reign is that at Medum, by Senfru last of his line.

Khufu was the founder of the fourth dynasty and under him began a period of development which lasted over four hundred years, producing monuments never again equalled in Egyptian history. These are the stupendous royal pyramid tombs of Giza Abusir and Sakkara. Surrounding them are the mortuary chapels of the nobles, chief officials and priests connected with the pyramid country.

In the chambers of the tombs have been found relief sculptures of fine grained limestone that are typical of the degree of perfection attained

by the sculptors of this time. In all of the sculpture, statuary, figures or relief, and in the painting as well, we find the feeling of grandeur and spaciousness expressed. The Egyptians, when their hitherto broken country became a unit with a centralized power, came to a new sense of the importance of man as a master of things, and the dignity, grandeur and unbroken unity in their work at this time tells us of their joy in sensing this power. Subordination of parts to the whole was now a ruling passion. Subordination of men to the glorification of man is the tale the pyramids tell. Life was cheap, the individual counted for little, the most powerful survived and his power was forever recorded by the labors of the slaves whose lives were taken by the hundreds, in order that these everlasting monuments might be constructed.

The greater part of all the best Egyptian sculpture was made at this time. The figures of the kings Khufu and Khafra are masterful in conception. The oldest statues of the Old Empire are the colossal figures of the god Min from Kaktos. A fact that has not yet been explained is that many of these sculptured figures are representations of an earlier and more primitive race than that of the first historic kingdom. Notice the large eyes that seem to stare vacantly at nothing, the drooping mouth, the hair cut short and brushed down over the forehead under the wig. We do not see these details in later

work in which the eyes are well placed, the brow is natural and the features well modelled. Frequently the eyes of these statues, through a mistaken effort at naturalness, were made of stone or crystal in a copper mounting and though they were well formed the effect to us, except in a few instances, detracts from the figure as a whole.

The statue of Khafra is considered one of the grandest works of Egyptian art. It is a serene figure characterized by a splendid dignity and is in strong contrast to the almost cruel energy depicted in many of the statues of this and later periods. This but tells us that the Egyptian artist was beginning now to study character, beginning to separate the individual from the mass and was striving to convey to the spectator not only the physical likeness of his subject but his personality. This is a very great advance and is throughout the world an evidence of an advanced civilization.

If we study carefully the details of these early statues we come to feel that the critics who have so long termed Egyptian work evidence of a conventional and stilted life and who prate of the Egyptians' inability to throw aside tradition and rise to liberty and beauty, have not remembered the conditions under which these artists worked. In so far as the Egyptian mind was free he exhibited that freedom in his work and essayed to portray the character of the life and people of his day. While

he did distort, he did not over emphasize without what he thought was a good reason and he maintained a simplicity and dignity that has won respect and admiration through the ages. In later dynasties, when life became more involved, the work loses freedom and simplicity and becomes more conventional.

There are a large number of ivory figures extant dating from this period. They represent dogs, apes, bears, lions, and there are a few figures of boys and girls; all are natural in poise and truthful in style.

We would fail in our story of the evolution of civilization were we to omit the painting of the Egyptians. Color was largely employed but not independently. It was connected with their sculpture and architecture and subservient to both. In the early historic period there was a great advance in drawing and painting over prehistoric times.

There is no hint of the least understanding of how to represent a variety of objects on a flat surface and make them appear to be at different distances; in other words, no grasp of the laws of perspective as we understand them, for as yet the Egyptian mind could not grasp ideas in their correct relationship and so could not depict objects in right relationship. This is the first thing that claims our attention in viewing an Egyptian painting and at once makes us class their pictures with those of a

child race. They are exactly like representations made by the very young child today. Often when figures are represented as following each other those behind are pictured as taller than those in the foreground. Again those furthest back are ranged in rows with the feet of one row entirely above the heads of the others.

The story to be conveyed to the spectator was the chief element considered; all else was secondary but we must acknowledge that the Egyptian treatment is at least systematic. The background, be it land or water, is always shown like a floor plan or as a geographical map appears but the figures are in elevation so the drawing consists always of a combination of ground plan and elevation in low relief, and in most drawing on flat surfaces the figures were mainly done in profile.

When the artist wished to represent some action or attribute it was necessary that both arms be in view, so he adopted the very simple expedient of showing a front view of the shoulders and arms at the same time keeping the rest of the figure and head in profile but he wanted it distinctly understood that his subjects had two eyes so he put two eyes in the profile of the face just as though they were seen from the front. This forced and clumsy twisting of the body to obviate the mastery of perspective has been resorted to by nearly all primitive artists.

There seems at one time at least to have been certain fixed rules for colors as certain objects were always painted in the same colors. Usually the background is a single solid color. Figures of Egyptian men are painted in reddish brown as are horses; women in yellow or light brown. Draperies are done in pleasing and varied colors and are often indicated as transparent.

The outline of the drawing is the best part of the work; the rest was done in too mechanical a way to be of great artistic value. One set of workmen prepared the plaster on the wall, another did the chiseling if any was necessary, and the third finished the outline and colored it. Superstition and religious ideas so hedged in and narrowed the artist's work that imagination had small chance for play. The individual artist in truth was not recognized. He was simply an artisan completing his allotted part of the work and the man who prepared the plaster and the man who drew and painted the picture were alike simple workmen, in all probability slaves. So to-day we have no names of Egyptian artists but in their place the names of the monarchs who encouraged or required the decorating of temple walls. They often represent the glorification of a monarch, whose figure is drawn larger than that of any of his followers. He may be pictured driving a war chariot or on a hunting expedition or engaged in decapitating his enemies, each

head being symbolic of some conquered race, but always he is the center of interest and his figure the most important in the composition, just as he was the most important individual of his time.

The paintings in the tombs done on dry plaster always relate to the life of the deceased. The subjects represented and oftenest repeated are religious scenes though the pictures also often give an interesting insight into these religious customs such as the methods of interment, the transporting of mummies by processional boat, the sacred dances and sacrifices. Profane scenes are not so frequent and are exceedingly valuable to the student as they show the details of the everyday life of the times. The paintings are in truth more a conventional picture writing than an esthetic expression.

The fourth dynasty was the culminating point in the history of the Old Empire, when Egypt threw off all trammels and emerged into the glory of the first fully developed civilization. Class distinctions were highly developed and recognized in society and art, exemplifying the majesty of the ruling classes, attained a breadth and dignity that we will hardly find surpassed even in later and more brilliant days.

This was the time when the greatest pyramids were erected. The kings of the fifth dynasty did not distinguish themselves by any remarkable deeds and built but a few monuments.

The sixth dynasty completed the Old Empire period and for a space of about four hundred and twenty-five years we know but little of Egypt except that it fell into a condition of disorganization and there was no one who promoted the erection of monuments which would later give a record of their time. After the fourth dynasty the kings seem no longer to have possessed the unlimited power of their predecessors. Provincial officials asserted themselves and the growing unity was interrupted. Strife between the rebellious lords and the Memphian kings brought about a series of short-lived dynasties when no lasting work of a royal or private nature was produced. All this is shown by the temporary interruption of artistic achievement.

As always happens the little rulers of little lands quarreled among themselves but by the tenth dynasty one of the old landed families managed to establish some sort of a claim to the throne. The claim was challenged, battles were fought and the Theban family was victorious. Antef, the leader, became the first king of the eleventh dynasty and founder of the second of the great periods of Egyptian history.

The Middle Empire

THE first rulers of this new era were so occupied in making their positions secure and in seeking to extend their territory that neither riches nor time could be expended upon any monumental works.

Amenehat, first of the twelfth dynasty, was a clever king and kept in order the still jealous and warring nobles. Under him and the vigorous line of monarchs who followed, Egypt again became united and prosperous. With less cause to worry over internal affairs, Egypt began to take a greater interest than ever before in the outside world. Raids into Nubia and Syria helped to enrich the land. Many of their marvelous engineering feats were now accomplished. They studied to regulate the productive power of the Nile overflow. By a series of dams they regulated the inflow and outflow of the waters of a lake and at the same time reclaimed for use thousands of acres of hitherto useless marsh land. It was during this period that we find the first traces of a standing army originating in a body of personal attendants on the king, used

to guard his person and his palace. The individual was now recognized and many were given a chance to gain wealth and influence by their own exertions. It was a glorious period and continued for about two hundred years, then it seemed to exhaust its vitality and another dark age of disorganization and anarchy followed.

A repetition of the state of affairs during the period between the fifth and twelfth dynasties now took place. Rival claimants to the throne sprang up all over the country; Egypt had to experience her first defeat by another power. She had grown vainglorious by previous successes but was conquered by a foreign people of whom we know but little until the later days when their rulers were known as "Hykos" or "Shepherd" kings, so it is probable they belonged to an organized clan of Eastern nomadic tribes. Less than a century after the last of the great twelfth dynasty rulers we find these Shepherd kings calling themselves kings of Egypt and the Middle Empire had become a thing of the past.

While Egypt was in the height of her glory, when her ruling classes were civilized and cultured, when she had a powerful monarch surrounded by a complete organization of court functionaries, the world in general was plunged in the depths of barbarism and the lands that were later to play so important a part in the world's history were peopled by unknown savages.

The prosperity of the Middle Empire demanded expression which gave opportunity to the artist and we find in this period some of the most finished work Egypt ever produced. A foreign force which later invaded the land entirely swept away all the magnificent edifices which history tells us were erected during the twelfth dynasty, so that of the buildings of this period we must judge by the few isolated pyramids left us and by the obelisk of Matariyeh near Cairo. The unique hypogea, or underground tombs, give proof of the great prosperity of Egypt at this time. Upon the walls the life of the ruler is pictured, showing his conquests, depicting his generalship in leading large forces of subjects to and from the gold and copper mines and in encouraging the great engineering feats produced at the time; then too, the everyday life of the period is portrayed. We see cattle feeding, the ploughing of the land with the same crude instruments as are used there to-day, the reaping and threshing of grain by animals who are treading out the sheaves under their feet, boats being constructed and loaded, the making of furniture from valuable woods and the manufacturing of clothing.

Toward the close of the Old Empire the style of reliefs had deteriorated and until the middle of the eleventh dynasty remained in such a state; there then appeared a new development of careful elaboration which during the latter part of the

dynasty became stiff and over detailed in style. This development is of great interest because here we find the real beginning of facial modeling. The various treatments of facial muscles, of the form of the mouth, the rendering of the contour of the cheek below the eye, the treatment of the eye itself, the sharp edge given to the lips in some instances, all show that individual observers were beginning to emerge from the mass of artisans; it all shows that men were beginning to think for themselves and that original artists were beginning to appear. Later for a brief time bold, high relief with simpler treatment came into fashion and was followed by what is known as the Theban school which style, very low relief with faint but perfectly clear outlines, is the chief characteristic of the twelfth dynasty. The earlier sculpture done below the surface of the block of stone saved a large amount of labor and protected the work from injury but it is so obviously a convention that it is never as effective and pleasing as the raised work.

We cannot help regretting in the statues of the twelfth dynasty that loss of naturalness and spontaneity which is so characteristic of the earlier work. There is now a display of carefully observed detail but that cannot make up for the loss of the personal vitality before exhibited. The work is now the style of a school, not that of nature. Records on temple walls have been found which show the

regular course of training of the artists. First they studied the positions of figures in slow action, then differences in the male and female figure, next mythological subjects and lastly the attitude of rapid action. With this more or less mechanical training we find a great elaboration of detail, over large masses of hair in statues and reliefs there is minute lining that required deliberate, painstaking work; and the necklaces show the same love of detail, each bead is often accurately and beautifully carved. The result is rather pleasing, its finish and reserve appeal to a sense of orderly perfection but the grandeur of former work is lacking.

Beyond an occasional vase of obsidian or serpentine nothing is seen of the stone work so masterfully done in earlier periods, the softer alabaster is in common use for vases and jars. The pottery of the twelfth dynasty shows one prevalent type, a globular or pear shaped pot varying in size from two inches to two feet. The hemispherical drinking cup, made very thin and having no brim, is also of this period. These vessels were rarely decorated and the bodies are of a common soft brown clay.

A most interesting tomb of the twelfth dynasty was discovered in recent excavations at Lisht. We will describe it as typical of this period. The occupant was a woman who died at about the age of fifty years. Her two names were inscribed upon her coffin with no other information. In the

tomb were found a set of four vases of alabaster intended for the reception of the viscera removed from the body during the process of mummification. Each jar was under the protection of one of the four gods of the dead, whose heads, carved in wood, were used for the covers of the jars. A complete set of pottery for food offerings was found in the outer chamber of the tomb, two of the larger flat dishes contained duck bones and other larger bones. The jewelry found on the mummy consisted of a circlet of twisted gold wire, several gold necklaces, silver and ivory beads, a delicate girdle of gold beads, bracelets and anklets of gold, carnelian, beryl, lapis lazuli and ivory, all telling of the wealth and position of the woman, the prosperity of the age, the skill of the artisans, the love of delicate detail and the desire for ornament, to express the wealth and culture of the royal families.

There are exquisite specimens of Egyptian jewelry of this period graceful in design and pure in color. It is free from any tawdriness and is always harmoniously and perfectly finished. Carnelian, turquoise and lapis were chosen for their clear strength of color. The method of putting a line of gold between two bright colors prevented any clashing or cheapening effect. Breast ornaments worn by the rulers were formed of an openwork gold plate engraved on one side and inlaid with semi-precious stones on the other. The engravings

are symbolic scenes depicting the important events or achievements of the particular reign. Some are excellent in design, others too complex and crowded for a piece of jewelry but the workmanship always calls forth our admiration. The crowns of the princes are far more graceful and charming than the official headdress of our modern monarchs. We have no record of how crowns originated but they are unquestionably an outgrowth of the chaplets of flowers and feather headdresses worn throughout the world by primitive people in an effort to impress and attract.

The wooden coffins of this age were usually entirely covered over with elaborate and brilliant color designs, the central motive in the scheme of design being a series of false doors which symbolized the ability of the soul to come and go at pleasure. Wooden models have been found in some of the tombs representing scenes of everyday life, placed there to insure to the deceased a continuation of the activity of the life he is leaving. There are boats with complete crews, models of houses, servants engaged in household duties, and men driving donkeys home from the fields. These models which were often well executed seem for some unknown reason to have taken the place of similar scenes painted on the tomb walls.

The New Empire

WE must now pass on to a consideration of the New Empire, after the last of the Shepherd kings had been expelled from Egypt. The eighteenth and nineteenth dynasties constitute the time popularly known as the Egyptian age of art, probably because of the accessibility and large number of the remains. The casual student accepts these works as typical of the Egyptian culture, but we have shown that the fourth and twelfth dynasties produced works superior in initiative and original observation. Now we find the artist catering to the conventional. You remember that in the art of the fourth dynasty we found a more or less mechanical treatment but also a perfecting of technicalities and much real charm, dignity and repose in the majority of the work.

After the troublesome days of the Shepherd kings the Egyptians seem to have tried to take up the art of expression with renewed vigor and we find rather hurried, bold productions. The sculpture is somewhat clumsily executed and the drawing badly done. The Egyptians, after ridding

themselves of the foreign rulers, were brought into closer relationship with the peoples of Asia and northern Africa and began to play an important part in the development of the Orient. Among the foremost rulers of this time was Thothmes III, an organizer, conqueror and administrator who perhaps was, as such, never rivalled in the history of Egypt. He defeated and dispersed federations of hostile princes, deposed weak rulers and placed in power those upon whom he could rely, established depots of supplies at advantageous points and encouraged commerce, making Egypt the first power in the ancient world, an empire in reality.

The isolation of the Egyptians was past for now they came into contact with foreigners through trading expeditions, merchants and ambassadors. Foreign princes married into the royal Egyptian houses. Egypt had grown rich by plunder and tributes from conquered people and so was a good market for foreign traders.

Nubia contributed gold, ivory, ebony, spices, cattle and grain. From Syria came silver, copper and semi-precious stones, cedar from Lebanon, aromatic woods and spices from Arabia and metal work and textiles were brought by the Phœnicians. The larger share of these riches became the possessions of the kings who were now able to maintain a greater state of splendor than when the power had been divided among the landed lords.

The temples, partially destroyed by foreign invasion, were now restored and the artists and architects turned back to the art of the Middle Kingdom for their inspiration and example, so that it is now difficult in many cases to tell to which of the two periods an object belongs.

Drawing is again seen of a kind typical of the temple reliefs of the Middle Kingdom and the only original development is an occasional attempt at sculpture in the round. The flourishing condition of the country is reflected in the art of the time of Thothmes III. Each individual, from the ruler to the humblest scribe, made all possible effort to supply and surround himself, both in this life and the next, with all the luxury that the newly found riches could command.

The conquering armies brought back from their conquests thousands of Syrian captives who gave a new impulse to artistic conception, for many of these slaves were not only selected because of their personal beauty but also because of their ability as artisans. You will here note a change of ideas expressed in the Egyptian's work. He used as his model a lighter, more graceful type but the result suggests a frivolity and lack of sincerity which never before was in evidence in the drawings and sculpture. The wealth, bringing with it the superfluous in materials, quite naturally developed a less serious view of life and gave more leisure for

imagination, romance and display of emotion, not always of the serene type of the earlier Egyptians. The dignity and solidity of those works we have witnessed gave way to more grace and vivacity but at the same time to the unreal and the merely sensuously pleasing and the doom of Egyptian national life was preparing.

It was a luxurious age, an age of wealth, and the easiest path is now the ruling idea. The eternal solidity of past ages is a thing gone by. Observe the cold, mechanical treatment of the mouth and eyes. Notice the often incorrect placing of the eyes and the formal raised band of the eyebrows. We now and then find details that take us back in thought to the time when we first observed the individuality of the artist asserting itself in his mode of expression and modelling of the features. Some of the outlines are fairly good but on the whole the florid, luxurious tendency of the age is everywhere shown.

There interposed here a revolution in thought, a change in religious and ethical ideas, probably due to the influence of foreign contact. Amenophis IV was the first of the kings to bring about a reformation. He proscribed Amen, the supreme deity, and in the place of this god substituted Athen, represented by the sun's disk. He changed his own name from Amenophis, "Prince of Amen," to Khu-em-Aten, "the Splendor of the Sun's

Disk." The temples dedicated to Amen were destroyed and a new capitol was erected at Tell-et-Amarua, causing Thebes to lose her ancient glory. This change in religious thought to the worship of a nature-loving god inevitably produced a war and consequent change in artistic expression. The stilted artificiality gave way for a brief time to almost realistic work and the sculpture in many instances is clearly true to life, though lacking in any high ideal motive.

This radical religious movement brought about a temporary wrecking of the empire, but it in turn was overcome by the conservative elements of the country led by the older priesthood. As a consequence anything that savored of heresy was forbidden and naturalism in art was looked upon with contempt and utter disfavor. Its influence, however, in spite of this ban, was too strong to be entirely overcome and architects and artists still emboided many of its ideals in their work. The sculptures of this time are conventional but possess a delicacy and fineness that place them among the most beautiful of Egypt.

The priests gloried in their triumph and spared no effort in the attempt to revert to the old order and so even art became orthodox and the spontaneity and originality of the latter part of the eighteenth dynasty was lost and in its place arose a stereotyped, lifeless style, a mere degradation of

all that preceded it. The drawing is bad, the details out of keeping, the architecture heavy and coarse in spite of grandeur of size. Even the hieroglyphic inscriptions were badly executed, and the utter decay of Egyptian art was arrested only by a deliberate copying of the style of the old Pyramid Age.

At this time in the New Empire, when there seems to have been no desire for substantial and perfected work, we naturaly find the artist using material he can work up easily and quickly; it was, in short, a commercial age. There was a profusion of figures carved in wood, graceful, and beautifully treated, especially the draped figures of the women. The delicate, careful work on dress and hair is admirable, even the grotesque figures of the wooden handles of toilet objects are full of character and the handles and toilet trays are interesting though often conventional. Among these we find also the nude figure introduced, which is rarely found in other materials. It is all fascinating and vivid but trifling and unimportant.

The relics of the eighteenth dynasty at Thebes are so numerous that we are more familiar with the style of this period than any other in Egyptian art, but, as has been stated before, it is inferior to that of an earlier date. There is not much care given to the modelling of the face or muscles, flat surfaces with little or no expression make the work

seem rather characterless. The paintings of this and the following dynasty are, however, remarkable. We see here again the desire for effect. The laborious sculpturing of tombs was abandoned for the more easily accomplished result in drawing and color. The figures are occasionally ill proportioned but this is not true of the whole and some are admirable in action. The coloring in one or two rare examples shows shading on the backs of figures and high lights on the rounded portions. This is worthy of note, for you will find such shading does not appear in Greek art until several centuries later. The outlines were made with long, free strokes and often it looks as though the entire length of the figure was drawn with one movement of the hand. Nowhere do we see hesitating, experimentally sketched lines. The Egyptian made his mistakes but he made them boldly and even in drawings that are in no wise correct according to our standards, there is always a pleasing effect of vigor and energy.

The use of glass beads superseded that of all other materials from the eighteenth dynasty on. The glass was not blown at this time but was moulded on earthen cores while heated to a viscous state. Glass was also used for the making of vases which were decorated by the drawing of rolled glass rods into the body of the vase while still soft. These rods were shaped into curving and wavy bands with a pointed instrument.

The jewelry shows the same tendency that characterizes all work of this age, the whole style being less substantial and dignified. A new handicraft appears at this time, that of drawing gold into fine wire which was used in plaiting chains. Although bronze had been used as an alloy as far back as the third dynasty, it was not generally employed until the eighteenth dynasty. Now we find bronze vessels skilfully wrought by hammer work. There was at first no decoration on these bronze vessels but later gold and silver wires were inlaid in the surface, much like the work we see in modern arts and crafts and more like the East Indian work of the same sort from which it was probably borrowed.

We have but mentioned previously the art of glazing or enamelling, which dates back to prehistoric times. In the earlier historic times small objects, such as beads and pottery, were glazed, but in the eighteenth dynasty huge blocks of stone for use in the temples were glazed on their exposed surfaces and it was also employed in all sorts of brilliant colors for small objects, such as scarabs, bowls, bases and ornaments, and for flat emblems and name plates with holes at the edges, for stitching onto vestments and robes. Colored hieroglyphics were inlaid on limestone walls. The capitals of columns were inlaid with squares of red and blue enamel with gold bands between.

It seems only natural and fitting that the desire for brilliant color should have been aroused at this time when the highest deity was the giver of all light and color. If tradition had not been so strong, if the priests had not been cunning enough to see that this emerging from the dark and mysterious into the light of sun and reason would, if allowed to continue, literally make their trade and themselves useless, Egypt might have passed safely through this luxurious age into one of saneness and progress. Conservatism and the influence of the past were too strong and a blind was pulled over the eyes just beginning to see a new meaning in life.

Rameses I ascended to the throne with a new (19th) dynasty but left us only a few monuments to record his reign. His successor carried victorious armies into Nineveh and Babylon and even into Armenia and aroused the enmity of the inhabitants of Eastern Asia. Rameses II, who, history tells us, "reigned sixty-seven years and begot one hundred and twenty-five children, fifty-nine of whom were princes," was the third of the line and has left many monuments which tell of his virtues, his valorous deeds and his power. He was a warrior and brought back from foreign expeditions hundreds of captives whom he set to work upon the erection of public edifices.

In the north, south, east and west the peoples who had been conquered by earlier dynasties

were beginning now to revolt against their Egyptian masters. In Asia the chariot fighting Khetas, with twenty other tribes, joined forces against the Egyptians and for eighteen years the struggle continued and resulted in a treaty of peace favoring the Khetas. The ancient glory of Egypt had revived for only a brief time and in vain Rameses III strove to withhold the country from the threatening disintegration. The long contact with foreign nations was having its influence as shown by the introduction of the use of foreign words and the worship of foreign deities.

The high priests of Amen in Thebes gradually undermined the royal power and even aspired to dethrone the royal family. Egypt had become too ambitious, she had become too greedy for territory, and had reached out until the empire became too large for a single centralized power to control and the races within her extended borders too varied for a single monarchy. She had lost the unity in which lay her strength. One by one her conquests slipped from her hold and when at the end of the twentieth dynasty the high priests appropriated the crown of the Pharoahs she was reduced to her smallest limits and surrounded by powerful enemies. The twenty-first dynasty saw a return to an earlier political condition. There was a division in the empire, at Thebes self-appointed kings reigned and at Tanis the legitimate family. Egypt now

completely lost her hold over Asia, whose influence was increasing in the Nile valley. The Theban kings chose Semitic names for their sons and even sent an Egyptian princess to the harem of Solomon, as is related in the First Book of Kings.

From that time on Egypt was never again her own mistress. The Israelites, to whom the Theban families had opened their doors, were rising up against her and aspiring to become lords of the soil which was theirs only by the generosity of its earlier occupants. Never again was there to arise a Memphian or Theban dynasty, but henceforth the capitals were to be in the delta, and from now on all of the kings were from foreign nations. She became completely divided within herself. In the north were several little states ruled over by several little kings, and in the south a separate kingdom was organized in the Sudan.

Manetho records the little wars, vicissitudes and divisions of the following dynasties, a continuous narrative of weakening nationality and submission to foreign domination. The Cushites, the Lybians and the Persians in turn were in supremacy until 332 B. C. when Egypt was conquered by Alexander the Great.

The Greeks began, during the twenty-sixth dynasty, to grow in power and aggressiveness. They flocked into Egypt as merchants and mercenary soldiers and with them came a revival of arts

and of learning. The pyramids of the Old Empire were repaired, the services in the temples resumed, the old hieroglyphics, now unintelligible to the mass of the people, again made use of by scribes and priests. Greater originality was displayed in building, but little in sculpture. After years of submission to the Persians Egypt was too weakened to resist foreign invasion and welcomed Alexander as her liberator and willingly accepted Greece and Ptolemy as her masters. The Greek policy was liberal and tolerant and gave to Egypt two hundred and seventy-five years of peace, but her history has no longer for us the same interest as when she held her proud place at the head of the nations. The history of Egypt under the Ptolemies now follows in the wake of that of Greece. They continued the tolerant policy of Alexander and although they adopted many of the customs of the Egyptians they were still Greeks in thought.

It was a Ptolemy who commanded Manetho, a priest, to write in Greek a history of Egypt, and still more vital and interesting to us to-day is the fact that it was a Ptolemy who ordered the Greek translation of the Hebrew scriptures. The magnificent library and museum of Alexandria, later burned, was founded by a Ptolemy and so again and again we find the names of this dynasty, which was essentially Greek, connected with the great intellectual movement in Egypt.

Many works were produced in true Egyptian style showing the influence of earlier periods. The larger productions were rather poorly executed, the capitals being over-elaborated, the reliefs too crowded with figures, which were characterless and inaccurately drawn. Alexandria, now the capital, was the center of a school of sculpture in which Greek and Egyptian types were mingled, each influencing the other, so that no real national art was left.

Cleopatra, the last of the Ptolemies, died 30 B. C., after a time of great luxury and extravagance. Just before her death came the Roman invasion, immediately followed by the Roman occupation.

Christianity was later introduced by St. Mark, and though not openly acknowledged by the ruling classes, Egypt largely accepted the new faith. In 381 A. D. Theodosius, however, ordered all of the old temples closed and images of the old gods destroyed. Thousands of statues were broken in pieces, temples were profaned, and of the magnificent civilization of ancient Egypt little evidence remains above ground to-day but its ruins and the treasures we have gathered into our museums. Egypt had so long lived within herself that she could neither withstand foreign influence nor adjust herself to it. Later many of the temples of Greece and Rome were eventually transformed into

Christian churches and the basic form of the Roman basilica was modified until it eventually furnished the ground plan of the Christian cathedral, while Greek and Roman literature and Roman law are so intrinsically a part of our present day civilization that we cannot separate them from our intellectual life. Not so with Egypt. Neither their buildings with their complex decorations, their statues, nor their beliefs could be modified for the use of others and they had themselves become so circumscribed by their past that they could not take on new things.

The Greeks in Egypt welcomed new things just as they did wherever they were. The Egyptian ruling classes were unable to do this and were displaced and disappeared and with them went their civilization. Egypt could withstand for thousands of years the invasions of people who, like herself, were animated by traditions and guided by precedents of the past but when there came a people who brought with them the law of progress she could not find within herself the power to either advance or repel. A nation cannot stand still, progress or decay is the law of growth. Egypt rose through her arts to her highest possible plane and then fell a prey to those who were in part at least to answer the question she herself had propounded but could not solve, the riddle of the Sphinx.

This then is the outline of Egyptian life. Its beginnings, those which have to do with its

origin, are more absolutely lacking then even those of Greece, for there we will find the traditions which tell of an earlier age and which recent research is proving to have been founded on fact. Of the early, the prehistoric life of ancient Egypt we have no legends which might aid us to an understanding of the beginnings of their beliefs and standards of conduct. The songs of no Egyptian Homer, telling of heroes and their adventures, are preserved for our enlightenment. Knowing nothing of these beginnings we cannot make even a guess at the date of the first civilization of the wonderful valley.

In the forty centuries to which we can accurately assign the civilization of Egypt there are many periods that are as yet either entirely blank or vague and indefinite in outline and detail but each year new materials are being added to the sum of knowledge of the subject and there is no reason to despair of ultimately clearing up the problems that are now unanswerable.

This is the longest time that we are privileged to follow the life of a single nation and there is no present reason for believing that we will ever be compelled to change our belief that the Egyptians attained nationality earlier and retained their national individuality longer than any nation which ever existed on the earth's surface.

The first point we considered in our discussion of the awakening of Egyptian intelligence

was the peculiarity of their location. While environment alone may not have been entirely responsible for their particular form of development, yet we know that there was nowhere else another civilization which quite resembled the Egyptian. It is absolutely reasonable then to suppose that their environment had at least at first much to do with shaping, not only their methods of life, but their intellectual processes and religious beliefs. These beliefs basically strove to account for the varying phases of nature and man's relation to them.

We have seen that art in Egypt was in a very slight sense ideal. It made small effort to create or produce beauty for its own sake. It was essentially the prime means employed by religion to secure eternal life and happiness for the dead who would, unless surrounded by the products of religious art, be unnoticed and unimportant after death. This religious end was the entire aim of art and if beauty were added it was more by accident than design. This added beauty was in all probability unappreciated, or was even looked at askance as unnecessary or extraneous, as a thing that might even detract from the original intention.

Art was called upon to provide for the gods and the dead, surroundings and dwelling places secure from destruction. It naturally took from nature models and materials which were best fitted to endure, so that the continuous, indefinite existence

of its products would be insured. Its temples and tombs must remain forever. This at once accounts for the great masses, the grand architecture and the lines of power and strength which give to every spectator the often reported impression of solidity and immutability which no other works of man have so forcefully conveyed.

The general tendency in sculpture was in the same way toward providing a permanent, imperishable likeness of a ruling type formed in the minds of the people and to make everlasting the likeness of those whose rank or association with rulers gave them the clearest right to immortality. The soul or double of the individual was thought to seek out these statues and dwell in them after the death of the individual. While there was consequently the necessity of having sufficient resemblance to the original so that the soul would feel at peace in the new form, yet that form must not be hampered or circumscribed by weakness. If the soul was to inhabit the image he must naturally be able to recognize it; that was absolutely necessary, but it was just as necessary that the soul be made comfortable in a strong body with powerful limbs free from blemish or the weakness of age. Youth is always to be desired, and by giving his sculptures the characteristics of youth, the strength and symmetry of youth, the Egyptian conferred upon the soul which was later to occupy them greater possibilities for joy and

freedom than if it were forced to occupy the figure of one weakened by age.

This is presumably the reason why there is so infinitesimal a proportion of statues of old men before the latest periods of Egyptian history. Furthermore, we know that several rulers who reached a great age were depicted with the figures of young men. The result was that the exercise of the imagination necessary to the development of religious beliefs such as they entertained was put to use to hold back or destroy the incentive to treat their sculptures in any but a formal or conventional way. This is apparent in other ways. The nude is almost entirely lacking in Egyptian art and this is not because they could not realize or express anatomy. In that semi-tropical land there was constant and never ceasing opportunity to observe the nude, a larger opportunity than there was later in Greece, and that the Egyptians observed to good purpose is shown in the very good anatomy of the draped figures of the sculpture of the later periods. The difficulty was that the workmen and the poor were the ones who in life went about with the least bodily covering. Nudity was the most obvious evidence of low social position. These statues were not intended as things of beauty, but as abiding places for souls and how could the soul of a king be content in after life in a figure which was lacking in the clothing or draperies which had in life distinguished the king from other men?

There was then an attempt in Egyptian sculpture to combine realism in portraying the face, within certain conventions, and idealism in the body, also within conventions. The force of these conventions, their power in restraining initiative, accounts largely for the failure to develop individual artists. We know that there were schools for sculpture. Patterns and pieces of granite and limestone have been found upon which beginners in the art had practised. Different times and different places produced sculpture which was somewhat individual to that time or locality, so that authorities are beginning to be able to distinguish them. We know from the hieroglyphics that the great sculptors and builders were held in high esteem but no record of a great sculptor or teacher of the art has as yet been discovered and probably will not be, as it is not to be expected. The work was for the use of the soul or double of an individual. How could that soul endure to have his home for eternity bear the signature of another? His name? Yes. A record of his honors and valiant deeds and high position? Certainly. The name of another? Never. If the name of the artist were there it could not help but share in the honor and there could be no division of benefits.

We can judge of their methods from the wall pictures where they are shown at work. We know that men who could produce such monuments

must have had a consciousness of their ability and been men of large responsibility, surrounded by many workmen but this knowledge is all based upon the results they attained. Their work is all anonymous. Who they were or what they were is unknown. Curiously enough they seem to have had no care or thought for either fame or immortality for themselves and to have entirely submerged themselves in their work. This is to the thoughtful observer, when all is said, the most striking single characteristic of Egyptian art. The utter failure in four thousand years of continued practice to evolve even a trace in sculpture of individual treatment. We find a few suggestions of attempts at freedom in painting but in these many centuries of alternate ebb and flow of national life we see no evidence of what could be called even the suspicion of the possibilities of creative art. Any tendency toward individuality or freedom of treatment must have been crushed out mercilessly until desire and ability were lost. The sculptor became content with a few simple attitudes which he reproduced again and again.

That at an early date there was inventive power in the Egyptian intellect is obvious but that power was gradually lost by disuse. As artists became accustomed to reproduce certain fixed types, they progressively lost in ability or inclination to observe or copy nature and the results became

uniform and monotonous. The early effort of the Egyptian artist was entirely realistic. He copied the things about him, scenes from everyday life, and did so much of it and did it so well that we are today indebted to that very work for much of our knowledge of the daily life and customs of his countrymen, but in those early days imagination was awakening and he invented and materialized symbols for many things. He endowed his rulers with godlike attributes and in his sculptures and drawings differentiated them from the people in size, expression and attitude, just as he differentiated the people from foreigners and enemies. The sphinx is again an obvious example of imagination, for while it is composed of details which were subjects of observation, the whole, an animal which never was on land or sea, is the result of entirely mental processes. In the same way the artists multiplied the combinations under which the gods were shown, so that it is not entirely correct to say that the Egyptions were content to develop only that which they could see. Somewhere in the process of imaginative development, tradition and authority, ever deadly enemies of originality, intervened. The pinions of imagination were clipped, its flight was hindered until it atrophied and died and with its loss all hopes for the development of the individual were gone.

There were other and minor reasons for this lack of originality. The study of detail develops

individuality but in the hieroglyphic writings of Egypt detail had of necessity to be eliminated. Each symbol must be as nearly like its predecessor as possible and all must be simple, or they would cease to be symbols.

Then, too, all of the larger monumental work of Egypt was done in hard material, usually granite, without the use of iron tools. They knew how to temper or harden bronze, an art which is lost to us, but they did not know of the use of iron, or at least did not use it, whether from lack of material or because of some superstitious belief is not known. The granite soon dulled bronze instruments no matter how well tempered so that fineness of surface line or of detail were well nigh impossible of execution and these great monuments, simple in line and almost devoid of anything but the most necessary detail, set the mold for smaller productions in stone and clay.

The Egyptians as a people and a nation were fully conscious of the strength of their ancient civilization. We know that when the scribes wrote of foreigners they had a large vocabulary of contemptuous terms for just that purpose. The nation had grown satisfied with itself which is in itself a sign of weakness and the very activity of this loathing for the outlander betokened a fear, vague though it might be, of contamination. Perfection is impossible to all but most impossible to those

who think they have attained or to those who fear a fall.

Egypt received nothing from any neighbor during the period when the character of her life was formed and would accept nothing until she was finally dominated by the Greeks. Hers is the single original civilization in all the history of the Western world. The distinctive features of her nationality were conceived and established when there were no nations in her environment sufficiently advanced to have any influence upon her. She then is the only country in which a civilization can be studied which began and was carried on by a single race. The long civilization of the Chinese is the result of one race superimposed upon another and the combination has not been perfected to this day. The study of other nations, which we will take up later, will show that they were repeatedly brought in contact with outside influences and cross currents. All other civilizations were either influenced by others or followed, to some extent at least, precedents already laid down for them.

The Egyptians lived for many centuries as on an inaccessible island and as a result their life and art is to be explained by itself and from itself. Every element of which their artists made use was part of their land and of their everyday surroundings, while that of other nations is a study of outside influences, or progress from things already established.

Another point in which Egypt is unique and which constantly fascinates us is its antiquity and the length of its ancient history. We are proud of our inheritance of European history, yet when we pause to reflect that the life of this nation was almost three times that of the Christian era, we experience something of the awe and bewilderment that we feel when in the presence of some vast panorama of nature.

Babylonia Assyria

WE HAVE already witnessed, through the medium of her arts, the rise and fall of the earliest civilization of mankind and now we will cross the desert and in another of the world's great river valleys study the ruins of another ancient empire. The Egyptians and Babylonians took the first steps in the direction of a civilized and cultured life, each uninfluenced by the other. It was when they had broken through their earlier boundaries and extended their conquests to the coast of the Mediterranean Sea that their civilizations met in Syria.

Perhaps even before you begin this chapter the question arises in your mind as to whether you will find in the objects of art of Babylonia any traces of Egyptian influence, or if on the other hand Egyptian life was influenced by the expressions and ideas of these people. It is our opinion that neither influenced the other, for nowhere in the most ancient of the works of Babylonia so far discovered, and dating from between 4000 and 3000 B. C., can we find any evidences of Egyptian feeling; on the contrary

all contained the qualities and defects of a distinct and individual art and resemble the Egyptian only in characteristics common to all primitive art. After even the limited survey of the relics of the ancient life of the Tigris-Euphrates valley, which we are about to take, we believe you will feel with us, that nowhere in the Egyptian work were there traces of Babylonian influence. By frequent comparison with Egyptian conventions and ideas the same primitive characteristics common to all early races will be discovered, but the divergencies due to race, geographical situation, climate and religious thought, will make themselves evident and perhaps impress upon our minds more clearly the salient characteristics of each people. The second question to arise is why we consider the life of Babylonia and Assyria together. This we can best answer by a brief outline of their political history, with some reference to the physical geography of the twin rivers.

Rising in the mountains of Armenia, the Tigris and Euphrates rivers flow southward and pour their united waters into the Persian gulf. The land between the two rivers may be divided into two parts, the southern lowlands, which received the name of Babylonia, and the northern highlands which became known as Assyria. The southern part is accepted as the site of the biblical Garden of Eden and was probably in very ancient times settled by a

non-Semitic race who laid the basis for Babylonian culture. In time a Semitic people, undoubtedly from Arabia, invaded the land entirely absorbing the earlier occupants and becoming the dominant race. This mixed race we call the Babylonians.

When history first raised the curtain upon the scene we find the people of Babylonia gathered into many small cities each ruled by its own king. After numerous attempts at centralization of power success attended Sargon I in 3800 B. C. This date is especially interesting as it is considered the first authentic date in the world's history. Hammurabi, one of the greatest of ancient kings, brought the whole country under one rule in 2250 B. C., and during his reign we find the people far more devoted to the arts of peace than of war, more interested in conquering nature than in conquering neighbors. Babylon, a city on the Euphrates, became the capital and center of culture as well as government.

There was a city called Assur further north on the Tigris river, the seat of the worship of Assur the chief god of the highland peoples. It was a colony of Babylonia, inhabited by a pure Semitic race and in time obtained its independence from the southern kingdom and gave the name Assyria, "land of Assur," to the surrounding country. Nineveh became its capital in 1320 B. C. under the rule of Shahmaneser I and thereafter remained the center of the empire.

The early history of this country is but a chronicle of an incessant series of wars. The Assyrians invaded neighboring lands, desolating the cities and treating captives in a savage and merciless manner. They tried but failed during the first empire to conquer Syria and Babylonia. They continued their conflicts under the second line of rulers and subdued the cities of Phœnicia and in 680 B. C. brought Babylon under their rule, but Babylon could not forget her former greatness and frequently but vainly tried her strength against the northern warriors until she found an ally in the Medes, living east of the Tigris. They together succeeded in destroying Nineveh in 606 B. C. The dominions of Assyria were divided between the conquerors and the countries west of the Tigris fell to Babylonia. Thus it was that Babylon regained her ancient power and ruled with greater splendor than ever before. Nebuchadnezzer, king from 605-561 B. C., restored her fallen cities and made her for a brief time the leader of eastern civilization. It was he who, to rival the beauties of nature and remind his queen of her highland home, built the famous hanging gardens, artificial hills constructed in immense terraces and covered with luxuriant shrubs and flowers.

All the luxury and pomp of Orientalism were here during the short time of Babylonian supremacy and then we but repeat the history of all

downfalls. When a nation or an individual indulges in the artificiality and glitter that tells of satisfaction with the external and superficial, the nation or individual weakens and deteriorates. Thus great Babylon fell before the rising power of the Persians in the year 538 B. C., and it is the life of those people that we shall review in our next division.

This outline shows how the three successive empires which occupied the Tigris-Euphrates valley were practically but three phases of one and the same civilization. Until our archæologists, scientists and philologists can satisfactorily clear up the mystery which still envelops many of the theories concerning these civilizations, can gather together and classify according to various periods of culture the comparatively few relics, we shall have to depend upon the history of the political development for our theory of the beginning of artistic development, its rise and fall. The day is not far distant, for each decade new discoveries are made, though as yet Egypt still leads in material proof of a splendid ancient civilization. The various materials, the objects created and the purposes of decorations, give us an insight into the lives and surroundings of these people.

Now a few hints as to the nature of the people and what mingled tendencies we may expect to find in the expressed ideas of the two different tribes. The lowlands with their rich alluvial soil,

soft climate and almost unbroken plain, not only invited wanderers to cease a nomadic life and abide where crops could be easily raised and flocks plentifully pastured, but influenced the entire civilization and directed the line of culture of the Babylonians. They naturally were a peaceful, pastoral people, cultivating the soil and tending their flocks, building wonderful canals, not for purposes of navigation but to irrigate the land.

The whole atmosphere of their life was such as tends towards dreams and fancies and the contemplation of the phenomena of nature. Life, however, was not by any means one long day of ease and plenty, for over and over again, when grains were almost ripe enough to be reaped, the desert wind came with its parching heat, sand and swarms of locusts, and left not one blade of green standing in the fertile fields. These horrors the Babylonians attributed to an evil spirit and there was nothing their imagination could conjure up worse than this all-devouring demon, which is pictured in their sculpture as most hideous and repulsive.

Neither stone nor timber were common and were to be secured only at great labor and expense for transportation, and therefore a material for homes and temples, for city walls and palaces, must be made, and Babylon, the great brick city, arose; and as we know Egypt by her pyramids so

we know Babylon by her bricks. The Babylonians early learned to weave fine fabrics from the wool of their flocks and when the territory of the kingdom was extended up the valley, wood, metals and precious stones were secured, and from these new materials were made new articles of use and of adornment. A merchant class arose, traders who carried the products to other lands and returned with foreign wares. Egypt had within her boundaries nearly all the materials she needed for her development, but Babylon was forced to go long distances for stone and wood, so we cannot look for the perfection of arts requiring these materials, nor expect to find the well preserved monuments such as Egypt still possesses.

These people, like all Orientals, were influenced in all their works by their peculiar form of religion and by their superstitions. Theirs was a complicated form of nature worship. Their highest deities were gods of heaven, earth and the sea, Anu, Bel and Ea respectively. They also worshipped the sun, the moon, and several planets. Their belief included the idea that every object had its attendant spirit, good or evil, and that these spirits could be appealed to through charms and magic rites only by priests and sorcerers. Their temples, constructed in the form of towers with a number of receding stories reaching toward the sky where the gods were supposed to dwell, conformed to their religious ideas.

Upon the top of the temple was an image of the god to whom the temple was dedicated. These gods were presumed to preside over the heavenly bodies and a system of astrology was devised by the priests and along with it a considerable knowledge of astronomy was developed. We know it was the Babylonians who marked out the constellations and signs of the zodiac. They used the sun dial and the water clock to measure the hours of the day, adopted the decimal notation in mathematics and introduced the system based on the number sixty, which we still use in our division of the hour and minute. They devised a regular system of weights and measures. The foundations laid by these early Babylonians in architecture, in science and mechanical arts, exercised over other nations an influence hardly to be overestimated. They were a peaceful and cultured people and typified the most refined civilization of western Asia. Their entire development shows that they were imaginative, symbolic in thought and more deeply meditative than the Egyptians, but they did not develop beyond the Egyptians in their understanding of the vital relationships of individuals.

We now turn to the Assyrians. What can we say that will give us any clear understanding of their influence upon the mingled civilization of these old river valleys? They have been likened to the Romans as a conquering, military people.

They apparently gave little thought to the arts of peace but cultivated the arts of war. Their armies were not aggregations of bands of fighting men under local chieftains but were made up of organized bodies of infantry and cavalry and they are famous for their war chariots. Their country was no monotonous unbroken plain casting a dream spell over its inhabitants, theirs no rich soil, no soft climate. Theirs was a rugged country where nature seemed to attack them and to invite them to combat. Fruits and grains were not so easily grown as in the south. The extreme heat and cold that alternated through the seasons called for invention for protection of man and beast. The mountain regions to the north of them were peopled by tribes who frequently invaded the land of Assur and made vigilance necessary to protect fields and flocks.

It was a rugged country that developed the type of man we see in the reliefs. The hardy warrior wrapped about in clumsy garments that tell of a climate unlike that of Egypt. Pride and cruelty were characteristic Assyrian traits but with these went strength of purpose, vigor and untiring zeal. What happened when these northern and southern natures met? Did these bold warriors destroy the developed civilization of Babylon and stamp out the love of learning? Far from that. Assyria, by force, made the Babylonians bow to her rule but she was ready now after annexing all of the territory

within her reach to cultivate the arts of peace and turned all her great energy and determination to the building up of a world empire.

She adopted Babylonian civilization and where possible she improved upon the Babylonian inventions. Babylonians devised the cuneiform writing developed by abbreviating hieroglyphics. The Assyrians used it and even showed a considerable taste for literature. They borrowed scientific ideas and mechanical arts and here attained greater skill than the originators. They adopted the Babylonian method of legal transactions and took over many of their religious ideas. They proved superior to the Babylonians in a more highly developed imperial government, a more palatial style of architecture, and a greater appreciation of sculpture as a decorative art. All this we would expect of a conquering people who would naturally reflect the idea of majesty and power in their monuments. It was the Babylonians who developed religion, science and art and a considerable degree of refinement; the Assyrians adopted that culture, put their impress upon it and it was in turn carried back to Babylon again at a later date.

Knowledge of these civilizations was long confined to the reports of a few Greek travelers and to fragments of history written in Greek by a Chaldean priest. It is well to explain here that the early Babylonian empire is also frequently called the

Chaldean empire and you will oftentimes find that name given to the early art of the land but the title Babylonian is more inclusive and so better answers the purpose. Explorers have in the last seventy years opened up before undreamed of monuments, of which Herodotus could have known nothing and over which victorious armies must have passed all unconscious of the buried treasure. Ruined cities, palaces and temples are witnesses to the once powerful civilization and the very recent excavations only add glory to the story of those ancient peoples.

The great city of Babylon, with its walls one hundred feet high and of a breadth to allow armies and chariots to traverse them, with its numerous battlements for protection from the marauding tribes, has left us comparatively few relics of a once brilliant civilization. Her grand edifices have crumbled away or been dilapidated by succeeding generations. Her structures were built upon platforms of sun-dried bricks and the inner portion of her walls made of the same material. These walls were occasionally faced with stone carefully joined and fitted into place but more frequently elaborately prepared kiln-dried bricks were used, some red and coarse, others fine and white bordering on yellow like our fire brick, and still others blackish and very hard. If we can believe the Greek writers the temple of Baal or Balus at Babylon must have rivalled some of the Egyptian pyramids, for it is

described as consisting of eight great terraced stories each less in area than the one below. But of all this work nothing remains and the arts of the land are best shown to us by two groups of monuments, those of Tello in Babylonia and of Nineveh in Assyria.

We went to the tombs of Egypt to find many of the relics that settled for us questions of habits, customs and race but here we find no such skill expended upon the burial places. Slipper shaped clay coffins glazed a greenish blue are decorated with rows of figures on the side. There are figures of men in short tunics and long undergarments, swords at their sides, huge coverings on their heads, hands on their hips and feet well apart. These coffins have been found piled one on top of another all with the same style of decoration. Oval shaped coffins glazed but undecorated were used later and there have also been found great numbers of earthenware jars containing burned human bones. These jars were placed in very small graves.

We at once know that these people could not have possessed the same belief concerning a life hereafter as did the Egyptians, to whom the belief in the immortality of the soul was one of the strongest influences evidenced in their works. The prevailing belief in the Mesopotamian valley was that the dead continued in a semiconscious state after this life was over. They were condemned to an

inactivity, which in itself might not have been regarded as an unmixed evil, except that it carried with it a deprivation of all pleasures. There was a belief in some sort of an underworld or place of darkness, a land from which there was no return except as some shade might rise up for a short time to trouble the living.

There in time developed in their myths a faint inkling of the view that the gods, actuated by justice and mercy, could not condemn all alike to a fate so sad as eternal confinement in darkness and they created the Island of the Blest to which were carried the favored ones but these favored ones were very few. There was only one thing that could make the fate of the dead less abhorrent. Proper burial with respectful care of the corpse insured at least a quiet repose. The feeling was natural with such a belief that there was little to be done for the dead except a decent burial which protected the living from being visited and annoyed by the shades of the dead. This idea of the end of all active life, and as a consequence of all real living, coming at the end of earthly existence colors all their expressions. The Egyptian was desirous of preserving likenesses of the deceased and did real portrait work in his sculpture for sepulchres. You find none in the art of the Babylonians and Assyrians. The serious, even sombre aspect given to all Egyptian work is lacking here. If, as these people thought, this life

ends all worth while, then they would be much concerned with all that could ensure them earthly pleasure and profit and were anxious in all ways to win the favor of the ruling gods. The essence of their faith was that of all fatalists, "eat, drink and be merry for to-morrow we die." This gives us a clue to all the subjects we may expect to find in their arts.

The glory of man as a creator and doer, a conqueror and ruler, was shown influenced by Babylonian fancy and imaginative power and Assyrian vigor and pride. The sacrifices and offerings made to the gods were shown and the myths explaining natural phenomena and connecting the supernatural with human, were pictured. All was narrowed by superstition and lack of materials. Lack of materials in Babylonia and lack of insight in Assyria, for Assyria was near timber land and had stone at hand but in the desire to accomplish the results in a short time they failed to make the best use of the opportunities offered. The ideals and natures of the two people tell us where in each kingdom to look for the shrine of art; to the temples of Babylonia and to the palaces of Assyria.

Temples, palaces and houses were all built upon brick platforms, terraced to a height of about thirty feet. Were these platforms to bring them nearer to the gods, to afford better protection or to gain purer air? We do not know. Broad flights of steps led to the main portals.

Great winged human headed bulls, the most characteristic creation of the Mesopotamian people, stood as sentinels before the gateways of the walled cities, at the entrances to the palaces, guarding temples and private houses and on exterior and interior walls. As the image of the sphinx comes to us with the mention of Egypt so this other peculiar combination of the brute and human we associate with the thought of things Assyrian. The basic idea of both is the same but the difference in the quality of imaginative force and of religious feeling in the creators accounts for the difference in the images conceived. The Egyptian symbol is less complex for there are but two forms combined. It is calm and quiescent yet great power is expressed.

Now look at the Mesopotamian conception. The head is human, but not entirely human for about it are twined several pairs of horns. The body and legs are those of a bull. The curling hair of the mane suggests the lion. The whole is completed by a pair of eagle wings. The idea was obviously to unite in one form the highest powers of life. The bull, lion and eagle are types of the highest physical force differently applied. The bull is patient, plodding and tenacious, the lion fierce, violent and swift. The eagle possesses the latter characteristics and has added the power of flight. The head and face of man symbolizes intelligence and

wisdom before which all so not endowed must succumb, yet in this image he is not free but is bound to and held by the physical.

The Assyrian bull stands upright and looked at from the side, gives the impression of being ready to stride forward, the great wings suggesting that they may one day be strong enough to lift the huge monster and carry him away from the earth. The Egyptian phinx is a grand and impressive monument but it so entirely fails to solve the problems of life that it leaves us with a hopeless feeling. These winged bulls do not arouse in us the same awe and reverence towards their creators. They fail to cast the same kind of meditative spell which the Egyptian work so surely does but we feel a sense of relief when we pass from the sphinx to this winged monster which at least prophesies an understanding of freedom.

Thoug colossal in dimensions—one weighing over thirty-five tons has been unearthed—and supernatural in the vigor and exaggeration of energy displayed, they have a peculiar charm. They possess a grace of line and pro ortion greatly heightened by the wings that lie on the back. The face, with strongly marked features, is framed with tightly curled hair and beard and is as remarkable as any of the Babylonian-Assyrian sculpture so far found. The expression is grave, proud, serene and often smiling and is in fine harmony with the general conception.

The illustration shows that the figure is almost but not entirely free from the stone slab. The head, trunk and fore legs do appear in the round from the front view. This combination of round-relief carving results in two curiosities. The figure has in the first place five legs, as the side was allowed four, while the front beside the support that it had in common with the side needed another that it might not appear one-legged. Then again as has before been stated the animal seems from the side to be advancing while the front view showed it to be firmly planted upon both feet.

The sculptors were not entirely incapable of producing statues wholly in the round but in the case of these immense winged creatures the material may have been partly answerable for their always appearing attached to the background. The alabaster was not always of the hardest quality and would not have supported upon the comparatively slender legs the great weight of the bodies. Knowing the impatience of the Assyrians we, however, conclude that the partially free figures served their purpose as symbols and decorations and were far easier to create in large numbers than if they had been finished on all sides.

Small statuettes not unlike the terra cotta figures of Egypt have been found under pavement slabs. They are not especially interesting as forms of art as they are for the most part hurriedly made

and finished only in the front or front and side. They were undoubtedly placed in the ground for propitiary purposes and from the bearded conical capped heads we are led to believe they represent some deity. It is an interesting fact that although these people were fond of combining animal and human forms, the forms and features of men and women were, as a rule, considered worthy to represent the greatest of the divinities. This is a foreshadowing of the Greek idea and one not found in Egypt where the heads of animals were generally used to depict the deities.

Female figures in various attitudes have been found among the partially and sometimes wholly finished statuettes in the round. These are probably all different conceptions of the one goddess, Ishtar, spouse of Assur, and the Venus of Assyria. The artist's idea must have been to make her appear as charming and beautiful as possible and the result is but one of the proofs that the nude in art was not generally encouraged by the Assyrians. Ishtar, the Goddess of Love, the Beautiful Woman of Babylon, the Mother Goddess, does not as we see her pictured excite in us the admiration she was supposed to call forth. None of the nude figures found exhibit any real grace and are far inferior to those of the Egyptians.

The most numerous of the small sculptured and engraved objects found in all parts of the Meso-

potamian valley are the so-called cylinders. They are really cylindrically shaped seals. The first were made of any smooth pebble and rudely inscribed. Later syenite, basalt and carnelian and still later onyx, rock-crystal and garnets were used in their manufacture. They vary in size from three-quarters to one and a half inches in length, and from two-fifths to one-half inch in diameter, though some few have been found of smaller and greater size. All are perforated lengthwise and through the perforation either a cord or a metal wire was passed. They were originally intended to be used exactly as our seals to-day for royal and official identification. As moist clay tablets were used for recording all transactions it is easy to imagine the ancient Mesopotamian using wire as a handle or inserting a small rod in the perforation and rolling his cylinder just far enough to impress the clay with the form of the special scene or symbol which he had chosen to stand as his seal and signature.

There is a great difference between the style of the work on these cylinders and that of the larger reliefs because of the totally different methods required. It is very evident from some of the early ones that but two tools were used in engraving them, one for the round hollows, one for straight lines. It is not unlike some of the work done by children to whom are given type forms for playthings. A circle represents a head or a cylinder a body, a line

is enough for a leg or arm. The head and shoulders of the human figure were indicated by circular hollows as were all the joints and often the feet, and the same was true of the few animals represented and of inanimate objects where any part even approached in outline the spherical.

The artists in time became better masters of materials and tools and more freedom is shown in the style of engraving but they were never able to give any great fineness to the contours of living forms. The best they could do was to make short cuts close together, which resulted in truer pictures than the early line and socket arrangement. Here again we find the impatience of the Assyrian standing in the way of his perfecting such work as he could with time and care accomplish. The majority were content with mere outlines and only occasionally did one lavish time and trouble enough on this form of art to give any hint of the breadth and truth that we find in the larger sculpturing.

It is not often possible to distinguish between the seals of Babylonia and Assyria though occasionally the cuneiform inscriptions furnish a clue. Great numbers of these cylinders have been picked up after rains had furrowed the earth in which they were lost and have been placed in various museums, thus offering material for an interesting study of the symbolisms and myths of these ancient days.

Although intended for seals these cylinders were quite as often used for personal adornment, being worn suspended about the neck or from the wrist, and were supposed also to act as charms or amulets. The wearer felt himself shielded from some evil spirit or protected by the god depicted, being granted special dispensation such as only that god could bestow. One scene often repeated with slight variations, portrays a seated deity into whose presence a worshiper is being led by a priest or before whom a worshiper directly stands, followed by a goddess who is the consort of the deity and who acts as intercessor for the worshiper. An altar, a tree or sacrificial animals and occasionally all three are added to the design. The sun, moon and sea gods and all the various minor gods are found in these seals in various actions and poses symbolizing the phenomena of nature. The popular myths are repeated again and again, especially the favorite stories of the nether world.

The Assyrian palaces made of brick walls of great thickness and placed upon elevated platforms, generally consisted of a number of narrow apartments and long galleries grouped about open courts. There were in some as many as thirty of these open courts and over two hundred separate rooms and galleries, consisting of the private apartments of the monarch, the apartments of officials and the body guards, household offices, the secluded

harem and a great palace hall. A temple or chapel was also occasionally included but more often it was built entirely outside the palace. The column, which makes so characteristic a style, was entirely lacking in these structures.

The decoration in Egypt was an intimate part of the structure and we cannot in thought free the limestone, sandstone and granite walls from the expression of the ideas cut upon them so many years ago. Here the case is different. The walls made of brick, each brick but a repetition of its neighbor, called for some relief and so arose the invention of attached decoration which answered the same purpose as tapestries, pictures and wall papers of later days.

The Babylonians used almost exclusively a facing of brightly glazed bricks and tiles, while in the Assyrian palaces the lower half of the inner wall was usually sheathed and protected by slabs of alabaster and these were carved and colored. It is probable that these relief colorings were only partial, the artist's idea being to draw attention to certain details. The paint was lightly applied and no attempt was made as in Egypt to entirely conceal the grain of the stone. The few examples left us show delicacy, richness and general harmony in the use of the primitive colors employed, but as for real or complete pictures we have nothing by which we can further judge their use of color.

The sculptor tells his story clearly and concisely with no superficial elements, and though narrow in scope, the wall decorations are natural in detail. A rigid, almost harsh style is found throughout most of the sculptured work, but the understanding and observation of animal life shown went far to redeem this severe tendency. Lions in repose and action, prancing and kicking wild asses, horses stretching themselves in the chase with quivering nostrils, are all given with remarkable closeness of observation and a real understanding of the value of life and action. Trees, plants and flowers were much less successfully represented, as they do not lend themselves to low relief such as these artists executed on the alabaster and soft limestone slab; furthermore, plant life does not attract to itself the attention of primitive men and children that they give to animal life. These sculptures show that those who made them were giving closer attention to details and in doing so they went to the extreme and over emphasized the lines of muscular development and expression, which is a characteristic of all attempts to show muscular action.

The few bronze reliefs, though often marred by the grotesque, were of a relatively high order and here again we find this particularly true in the portrayal of animals. The human face still remains without expression even where the features are carefully worked out. Delicacy of touch and beauty of

detail distinguish this metal work. The hammer and chisel were used with wonderful skill, the story told was concise and the superfluous was eliminated.

The subjects chosen for these reliefs were various but all depicted action. There are camp scenes showing the cooking of rations and the grooming of horses. We see the setting up of commemorative slabs as an army passes along after a victory. Many successive stages of battle scenes are represented including the details of the attack and defense of a walled city, which include the archers firing from behind skin covered shields while soldiers push forward a battering ram and pour water upon its front to prevent its being fired by the torches cast down by the besieged.

Another favorite theme is a royal hunting party, in which we find the triumph of Assyrian art. There is nowhere in the sculpture of the early Greeks anything finer than the figures of the wounded lion and lioness shown in our illustration. The realism of such work as this is positively startling and arouses our admiration for these ancient sculptors.

The goddesses who figure so frequently on cylindrical seals never appear in the bas-reliefs. We find in fact very few women portrayed and those are either queens or captives. The illustration shows one of the few reliefs preserved in which a woman is portrayed. It was a part of the frieze in the palace

of Ashur-bani-pal and represents the king and queen banqueting in the garden surrounded by attendants and servants. We can tell nothing of the personal charm of the queen, for the face has partially crumbled away and the garments conceal any beauty of form.

The enamelled bricks for wall decorations were made in both regular and irregular shapes; the latter were placed upon the wall in a kind of mosaic. In many places these facings were of a single color but upon palace walls each separate brick or tile was modelled and colored in reference to the entire representation. The subjects are various but like the stone carvings, they all portray action and in all the animals are particularly lifelike and impressive. These tile pictures were occasionally used upon the upper part of inner walls with the carved stone slabs below but the two styles of decoration were used separately much more frequently.

The glazing, such as was found on these bricks and the coffins earlier mentioned, was also used on various earthenware vessels with blue grounds with violet and yellow decorative patterns and white ground with stripes of brown and purple. The glazing is inferior to that similarly employed in Egypt, being coarse and lacking cohesion, and the vases which are decorated and coated with it cannot compare in outline and general beauty with the Egyptian pottery. It is hardly fair, however, to

try to judge of Assyrian pottery from the relics left us, because no truly distinctive types have been found. Such as have been excavated are probably products of a later day when Assyrian civilization had deteriorated.

No statement regarding Assyrian and Babylonian civilization would be complete which did not more fully mention the use of the clay tablets which has already been touched upon in the paragraphs on Assyrian seals. Whole mounds of these tablets have been found which were in the nature of libraries and depositories for records of business and legal transactions. Paper, if not entirely unknown, was not apparently employed for either communications or records. The translation of inscriptions upon these clay tablets shows that their literature was devoted almost entirely to what is to us an uninteresting and primitive mythology and long lists of the accomplishments of various rulers. The translation of tablets devoted to business and legal matters is of greater interest as it shows that these people, so deficient in many of the things that we consider necessities of life, were very exact in business transactions and had a quite elaborate method of recording the transfer of land and assessing taxes upon it.

Many architectural ornaments and small statuettes of clay are known to have been encased in costly metals which in later years attracted the

cupidity of spoilers and have consequently disappeared. Curiously enough, in spite of the love of ornament shown in the sculptured figures and the decorations of the palaces, neither the Babylonians nor Assyrians produced with all their transported metal jewelry of any excellence. We have no evidence of graceful, refined, well harmonized personal adornments such as we found in Egypt. A few bronze bracelets still exist made of bars tapering at each end and beaten into a slight oval; a few gold ear drops or rings made in the same manner. The bas-reliefs show that at Nineveh at least jewelry was somewhat further developed for there were jeweled ornaments on the arms and necks of the figures. Among preserved specimens are necklaces and earrings of semi-precious stones cut into cylinders, prisms and medallions. The princes wore necklaces made of separate pieces, probably of gold, each piece so shaped or engraved as to bear an emblematic significance all its own. We know them only from the sculptures.

The designing and making of jeweled ornaments means infinitesimal pains. It means a love for the work of creating the object for the sake of beauty alone. It means a nicety of touch, a sense of proportion, and so no hurried, unskilled workman can produce any but heavy ornaments which do not deserve to be classed as jewelry. The Assyrian might give considerable time to engraving a stone

for a cylinder for that he put to use as his stamp upon a contract, his seal or signature, but he would not devote the time requisite for producing fine jewelry.

The rulers of Assyria, ever imbued with the idea of their imperial power, ever ready to impress it and their superiority over ordinary mankind, encouraged the work of engraving their seals and as the king does in high places so we find the subject doing in his plane. Seals grew and multiplied until every official, every scribe, every subject had his own private seal, although there may have been many another like it somewhere in the land. The spending of days and months in making fine wires of gold and creating small ornaments was contrary to all that we know of the impetuous, warlike Assyrian, yet when you consider what must have been the time and skill expended upon the richly embroidered robes we feel that we must find some other reason for the lack of jewelry.

The Assyrian sculptor does not leave us ignorant of the fineness of the royal robes, as he seems to have delighted in producing faithful copies of these details. The work was undoubtedly embroidered upon the cloth, not made separately and attached, and as pictured in the reliefs it seems to belie our presumption of lack of patience. There is but one other explanation. We know that the women of these Oriental lands to-day do wonderful embroidery upon all qualities and grades of woven

cloth and we marvel at the richness of color and design. It is but fair to assume that the women of those earlier days did the intricate embroidery shown upon the royal robes.

We find most interesting designs on the robes of Assyrian and Babylonian princes and upon pavement slabs representing rugs or carpets. These designs are very similar to those now employed in Oriental rugs both in motive and arrangement and are not one whit less artistic. They show a power of invention that is remarkable when we consider the characteristic Assyrian eagerness to finish quickly whatever is undertaken.

WE have now considered the ideas expressed and called your attention to some of the points of technique in the sculpture pictured, and long before this point you have doubtless made your comparison with Egyptian development and have decided how far these people have advanced. Their work began with profile, as does that of all primitive people, and as yet no knowledge of perspective appears in our illustrations but they made attempts at foreshortening and the shoulders are far better done than any we saw in Egyptian drawing. The attempts to present the front view of the head and bust, the body in profile and the feet from the front were not

entirely successful and the distorted figures resulting were far less pleasing than those in profile. The attempts are interesting because they again indicate the never ending desire to improve. The artists were without accurate knowledge of the whole anatomy of the human figure as the nude was seldom attempted and so were without the incentive it supplies to strive against a mere pattern. There is now and then a hint at an attempt of released sculpture but it is probable that it received but little encouragement as no great success was attained. The figures stand out well from the background, which is nowhere hollowed except where figures are very small and so in slight relief but this you cannot see from the pictures, as the hollowing is very shallow.

Have you anywhere detected in the illustrations any hint of individuality of artist or subject? We have failed to find it. Even races are not distinguished by their features. One facial pattern is repeated over and over again. The Babylonian fancy instead exercised itself to its fullest extent in creating those truly original sculptured types which embody their conceptions of the spirits of different and opposed orders, really noble creatures on the one hand, on the other, vicious, ghoul-like demons.

It seems a little strange that the more observant and less fantastic Assyrians, who concerned themselves not at all with the body but as a rule hid it in robes, did not rise to realistically portraying the

faces of human beings. Their talents were confined to the truthful portraying of animal life and here they did excel. They were not sufficiently interested in individual human beings to attain to portrait sculpture.

Had the Assyrian kings been of a less impatient nature when they sent for Babylonian workmen and artists to build and decorate their palaces, a finer, higher type of sculpture might have resulted. The Babylonian could not experiment in his own land with hard stone and good wood and the Assyrian monarchs brought him to their cities not to dream and to bring forth living creatures from the stone lying there unused. The kings wanted palaces built and decorations made, not for future generations but for themselves, and "hurry" was the order of the land, so the Babylonian must repeat and repeat and not venture to let his fancy create new forms in new materials.

That the human form and features received less attention than in Egypt is not so very strange because individuality after all could not have counted for very much among a people who held the idea of a wholly inactive life hereafter. The deeds of the king, who was also high priest and but little below the gods, were worthy of recording, and of course some distinction had to be made between the royal personages and their officials, attendants and slaves. The artists created certain conventions

in making these distinctions and these types set a limit to artistic development. Once having arrived at their ideal of manly beauty they could but repeat the type. We can note this type in the pictures. The arrangement of the hair and beard, the low forehead, heavy arched eyebrows, hooked but rounded nose, well rounded lips and chin, eyes always, as in Egyptian work, drawn in the full even though the figure is in profile, all are shown again and again.

This pattern once made seems to have been accepted by all sculptors and hence they became skilled artisans rather than creators as far as this part of their work is concerned. There were two styles of heads shown, one with and one without a beard. Kings, ministers, officials and soldiers, and the gods and great winged bulls were all bearded. We see some unbearded attendants in royal processions and garden scenes and in representations of the people of the lowest classes performing various kinds of labor and conclude that these beardless men were so sculptured that we might not confuse the court eunuchs, the peasants, laborers and slaves with the free men and royal personages.

We must give these ancient artists credit for the painstaking way in which they carved minute details of dress and accoutrements which they thought would in any way help to make perfectly clear the story they told in their sculptures; and also for never overdoing the matter by the addition of

the superfluous for the sake of ornament or balance. Every part included assists in some way in the expression of the idea, of this we may always feel reasonably sure. If we perhaps find some seemingly meaningless detail in the Assyrian reliefs or on the seals, we find that a study of the religion, the myths and the history of these valley people will usually prove our statement that the superfluous is never present in their work.

So far as Babylon is concerned there are few remains of sculpture. On the other hand, the centuries over which the Assyrian power extended are pictured in such a wealth of reliefs that we are embarrassed by their number as well as their want of variety. Our difficulty in illustration in the case of Assyria has been to make a selection from a vast quantity of objects that tell us the same thing again and again; while the difficulty in the case of Babylon has been to insure that none of the scanty salvage from so great a wreck should be lost. We are frequently compelled to make induction and imagination take the place of examination before we can complete even a rough sketch of a certain phase of the development of Babylonian life.

ONE question always arises in connection with the first study of any nation, ancient or modern—the question of the original source of their life and art. Did then the Babylonians receive their first inspiration from a foreign source or was it from within themselves, the original result of their surroundings and the natural aptitude of the race?

The Tigris and Euphrates rivers do for the land through which they flow what the Nile does for Egypt. Lower Mesopotamia is entirely their creation and all vegetation depends upon the two rivers. It rarely rains. There are a few showers at the changes of the seasons and a few days of heavy rain in winter but during the summer for months together the sky remains cloudless while the air becomes not only hot but dry. Clouds are almost as rare in winter but there are violent wind and sand storms and if the wind is from the mountains of the north the temperature is occasionally below freezing and stagnant water in the marshes is covered with a thin coating of ice.

Both rivers overflow annually and it is well that they do for the land not thus fertilized and renewed is dead and barren. The rivers do not rise with the regularity of the Nile, almost on a certain day annually, nor are they so slow and regular in their great annual pulsations. The waters do not spread so quietly upon the land nor do they remain so long, nor is either of the rivers confined between

such definite banks as was the Nile, so that there are now vast marshes left by the overflowing waters. The overflowing waters were in the ancient days of Babylonian prosperity hoarded in great ponds or reservoirs and as the floods subsided were fed out to the land as needed through systems of canals and irrigation ditches larger and more elaborate than anything now in use.

The civilization of the Euphrates valley was ancient but that of Egypt was more ancient still. That of the Euphrates was not the first, yet as you have examined the pictures of Babylonian and Assyrian art you cannot but have concluded that the ideals, the motives and the manner of execution are original. Many of the limitations were the same, just as the problems of expression were the same, but it is obvious that the workers of Memphis and Thebes were in no sense the original teachers of those of Babylon and Nineveh.

The difference between the two styles was simple and radical. The Egyptian sculptor was constantly compelled to simplify, to eliminate; the Assyrian just as constantly strove to elaborate and accent details. He was the opposite and insisted on what the first, as we have seen, was compelled to leave out. The Egyptian gave thought to the expression of power and majesty in repose; that was ever his great characteristic, his chief attribute. The Assyrian, within the limitations of his ability to

master the stone slab, went to the extreme of action. It is not only not conceivable that his hands could have put a greater animation into his sculptures but no other nation has ever developed sculptors whose intentions were any more positive. His reliefs, where his work had the greatest freedom, show only an occasional seated figure. Men were not only on their feet but in action. He demanded movement and the more violent the better; not that it developed graceful lines but presumably because it satisfied his desire for an expression of abounding life.

His knowledge of anatomy was evidently not so exact as that of the Egyptians. Presumably there was not the constant daily familiarity with the human body, so that while he was impressed with muscular development and action, he could not properly attach or articulate the limbs. On the other hand he displayed a remarkable mastery in depicting animals, a mastery which has never in its basic elements been exceeded when we bear in mind his general stage of development. The Assyrians were a race of hunters and soldiers. They were appealed to by strength in action, by force in attack, by contempt of danger in resistance.

This ever present desire for action in opposition to some man or thing, eventually becomes of itself monotonous. There are nowhere scenes of ordinary everyday life as in Egyptian art. As one

looks long at the work the thought comes to mind that the lack of the expression of the joy and variety of life is just as positive as is the interest in action and force. The homely and even comic, without which there can be no true representation of actual life, is entirely wanting not only from Assyrian sculpture but from all its other art forms.

The greatest defect in Assyrian art was its inability or failure to depict woman. The favorite scenes, those of battle and the chase, gave no opportunity for including female figures and the fact that few of the larger works were undertaken in which female figures were considered necessary shows a striking lack of the appreciation of the possibilities of grace and contrast which might have been added by the introduction of such figures. It also throws a strong sidelight on the position of women in those times. The Assyrians were obviously a masculine nation. While women were protected by marriage and property laws, the place allotted to them in the national life and thought was just as obviously not a large one.

The conquest of Messopotamia under the Theban kings of the eighteenth Egyptian dynasty and the later conquest of Egypt threw the two civilizations together but each had gone its own way and followed its own ideals so long that Egypt remained as she was and we have only a little evidence of Egyptian influence on Assyria.

Later the importation into Assyria of objects of luxury was carried on through the Phœnicians. Some foreign motives were adopted by Assyrian artists but the original character of their work was at no time lost. Their art at no time departed from its independent form and character, established by the inborn qualities of the race, their natural surroundings, their manners and beliefs and the qualities of the materials in which they worked.

The Assyrians and Babylonians, like the Egyptians, built their cities and palaces and great irrigation projects by human hands, almost entirely unassisted by any mechanical devices. Both alike used scaffolding and wooden supports bound together by cords; both used levers and wedges, of which the Egyptians give us the first records. There was a relief at Nimroud of a besieged city from the wall of which a bucket is suspended by a cord which runs over a pulley like those so often seen in a modern country well. One of the besieging soldiers is in the act of cutting the cord just before the bucket touches the surface of a stream which runs outside the walls of the city.

There is no evidence that the Assyrians employed such a contrivance in any other way but for drawing water. We have no evidence of their using it for the purpose of lifting heavy weights but the fact that they understood its principle puts them slightly above the Egyptians as engineers. They

were never called upon to transport such enormous masses as the Egyptians, even though their stone bulls were no light weight. This work was all done, as shown in reliefs, by a multiplicity of human beings, probably slaves or captives, working with cables, levers and rollers under the supervision of overseers who did not hesitate to punish or strike down the workmen.

The Assyrians knew as little of perspective as they did of mechanics. When they wished to show a building with its contents, or a landscape background, they went about it directly and did not hesitate to combine in one view many things which could not possibly be seen from a single viewpoint. Their chief desire was to be understood. They frequently combined in that fashion a vertical section with a projection, laying open the interior of a building at the same time they showed its exterior arrangements and surroundings; thus giving the unique privilege of looking down on it and at it from the outside, at one and the same time.

The chief desire of the sculptor was to be understood and as a consequence he was compelled to be literal. That was the governing thought. None of their sculptures or drawings have, any more than the Egyptians, a scale introduced by which the proportionate size of the various objects can be judged. The important men were shown big in proportion to their importance and overtowered their

surroundings and other men. In their ability to make lines and surfaces indicate thickness of bodies and the relative distance of different figures from the observer both the Egyptians and the Assyrians were in the infancy of art.

IT is one of the most remarkable facts in all history that the records, so carefully made and stored, of so renowned and powerful a civilization should have been for so long a time so completely lost and that the site of a city as eminent for its size as its splendor and world power should for ages have been a matter of doubt. The ruins of Assyria and Babylonia, chiefly great mounds, apparently of earth, have long excited the curiosity of travellers by their size and evident antiquity. A great mass of vitrified brick work covered with rubbish and the dust of ages is identified as the Biblical Tower of Babel. Another such mass is now known to be the remains of the structure which inspired the Greek account of the Hanging Gardens of Babylon.

It was less than one hundred years ago, in 1820 to be exact, that the first excavations were made, and for years a case scarcely three feet square in the British Museum held all that was known in England of Assyrian art. All of the Biblical illustrations of the time were entirely imaginative. It was

not until 1850 that excavations were more seriously undertaken and since that date there have been many expeditions and a steadily increasing amount of material brought to light, until we to-day are in possession not only of a large amount of interesting and valuable sculpture and art material but of a great mass of records.

The code of laws compiled or propounded by Hammurabi in the Twenty-third century B. C. is the oldest known to history. It antedates the laws of Moses by about a thousand years and is of earlier date than anything of the sort that has yet been discovered in Egypt. It is recognized as one of the most valuable human landmarks in existence and lights up a mass of knowledge of the conditions of Assyrian civilization, obtainable in no other way. It gives an insight into the country and its people, its civilization and life conditions which were before almost entirely hidden in obscurity.

The discovery was made in Persia, in excavations at Susa, by the French expedition under de Morgan in January, 1901. The stone upon which the laws are cut is of black granite nearly eight feet high and the inscription has been entirely translated. There is an autobiographical preface and an epilogue, both eulogistic of Hammurabi, and the code itself contains two hundred and eighty-two separate statements. A few follow which show something of the quality of the whole.

"1. If any ensnare another, putting a ban upon him, but he cannot prove it, then he that ensnared him shall be put to death."

"14. If anyone steal the minor son of another, he shall be put to death."

"105. If an agent is careless, and does not take a receipt for the money which he gave the merchant, he cannot consider the unreceipted money as his own."

"127. If anyone point the finger at the wife of anyone, and cannot prove it, this man shall be taken before the judges and his brow shall be marked."

"138. If a man wishes to separate from his wife who has borne him no children, he shall give her the amount of her purchase money and the dowry which she brought from her father's house, and let her go."

"196. If a man put out the eye of another man, his eye shall be put out."

"219. If a physician make a large incision in the slave of a freed man, and kill him, he shall replace the slave with another slave."

"229. If a builder build a house for some one, and does not construct it properly, and the house which he built fall in and kill its owner, then the builder shall be put to death."

"279. If anyone buy a male or female slave, and a third party claim it, the seller is liable for the claim."

The epilogue commences with these words: "Laws of justice which Hammurabi, the wise King, established. A righteous law and pious statute did he teach the land. I expounded all great difficulties, I made the light to shine upon them."

THE Babylonians identified the greater gods with the planets, and the lesser gods with the fixed stars. Their religion was essentially a star worship, though image worship was an important factor in it. The image was considered as the representative of an individual god who was intimately connected with the image or was the image itself so that in times of war between cities these images were captured, exchanged and recaptured and their return to their original dwelling places welcomed by the people with great rejoicing.

It is impossible to distinguish the paths by which the learning and science of the East came into Europe, though we know that much came to the Greeks through the Persians. The watches that we carry in our pockets to-day and the clocks upon our walls are constant reminders, to those who know, of the scientific knowledge of Babylon. The faces of our time pieces carry marks which correspond to the Babylonian divisions of time; our mile is a derivative of their measurement of distance.

The agreement, even in matters of fine detail, between the Babylonian mythology and that of the early inhabitants of the Germanic forests precludes any possibility of an explanation of their origin except that the one was from the other. "The common endowment of the race is an easy method of explaining many things and obviates a multitude of reasons but does not explain either the general agreement of these mythologies or the obvious relationship of detail."

IN THE numberless ages that passed before we know its history the mysterious East saw the genesis of three great civilizations; that of Egypt, of Assyria, and of China. All three are primitive in character. So far at least as we have been able to judge, no other form of real civilization had preceded them. The past had left virtually nothing to guide them on their way. In the valleys of the Nile, the Euphrates and the Yang-tse-Kiang were three natural theatres in which all was prepared by nature for the great dramas to be produced upon their stages and there man emerged from the measureless night of barbarism much earlier than he did in any other part of Asia and Africa. He there formed organized societies whose beginnings are so lost in the past that we are unable to decide

positively on which hearth the flame of civilization was first kindled.

Although these civilizations each had a character distinctly its own; they had, nevertheless, many common features. It would take too long to list all the likenesses which come to mind, but two are impressive as soon as comparison is adjusted. All three nations learned to write and in ideographic characters, although these characters were by no means alike in the three countries. They all commenced in the same way, by representing in a crude way the thing whose idea it was intended to convey, and as time passed these characters were wrought into conventional forms. This conventionalizing, however, did not go along the same lines. The methods and the final results were greatly modified in each instance by the materials used. Writing on rice paper with a brush is decidedly a different process from making marks on a soft clay block with a sharp instrument.

While the results were different the steps followed by the three nations in developing their ideographs were much alike. They began by illustrating every object to which a distinctive name was applied. Then they simplified these illustrations and eventually made them into conventional characters which they finally applied not to names but to sounds. These were the methods of progress.

In one country it went further than in another and in China the system was ultimately so established and fixed that it could be applied to printing, but the outstanding fact is that all these civilizations alike arrived at a method of communicating their thoughts and handing them down in permanent form to future generations. They began with the same general methods and ended as wide apart as their civilization and geographical locations but despite the great progress shown by all three in this achievement none of them went on and took the ultimate step and invented an alphabet. They all approached the goal but none achieved it and that great distinction belongs to another time and another race.

These three civilizations were further markedly alike in a pair of very distinct characteristics which may well be considered together. The three were alike in the great length of their history and also alike in their resistance to change. There were changes in their three or four thousand years of history but they were in no case essential or vital or such as to in any way noticeably change the trend of national life. Religious beliefs and forms, manners, customs and social institutions all gradually crystallized until they reached a point where they were as nearly changeless and immutable as anything human could be. They did not remain absolutely unchanged during such a lapse of time,

yet the conservative spirit had with them a holding, binding force that we of the West have never known.

We must constantly bear in mind, too, that none of these countries were free from the vicissitudes that have so many times proved disastrous to Western nations, but the shock of political revolution and civil war and the attack of barbarian hordes were alike powerless to sap their vitality. Each crisis spent its force and each nation lived on with its vitality apparently unimpaired. The organism had developed so slowly and patiently, it was so resilient and full of resistance, that a temporary conqueror could make no permanent impression upon it. The national life went on in its accustomed groove. The ruler and his court might be of foreign blood but they were eventually absorbed as the national life moved about them like some great glacier, slowly but resistlessly. The foreign elements were eventually so incorporated into the mass as to be almost indistinguishable.

China, cut off from the rest of the world by mountains, deserts and seas, has outlasted the others. Now the China of Confucius is only beginning to stir, look about and consider taking a place among other nations.

We have seen how slowly, especially in the earliest steps, civilization has advanced and when we come to consider what so many writers speak of

as the inexplicable development of Greece and Rome we must not blind our eyes to the past. The older societies of the Egyptian and Mesopotamian valleys and the Ægean islands had in the previous centuries done their work of slow invention and mastery. Had it not been for the civilization of Egypt and Assyria, we may be sure the world would not have witnessed the later rapidity of development in Greece and Rome. It is worthy of note here that it is to the Mesopotamian valley that we owe the first cultivation of wheat, just as we owe cotton to the Nile.

If, before the coming of the Greeks, there were any people who had a passion for form, it was the Egyptians. The taste of the Assyrian was frank but narrower. He could not combine grace with force. The Egyptian excelled in art, the Assyrian in science. His adventures in astronomy and philosophy reached the thinkers in Greece after the Alexandrian conquest. The artist will probably always have a predilection for Egypt which he will find no difficulty in justifying but one who weighs and considers cannot but give much homage to the influence of Babylonian learning. Hers has been unquestionably a greater influence on our present day life than has Egypt's. What China will do for us in the future no man dare prophesy.

In the closing years of the Babylonian empire we again meet the same conditions which

invariably appear at a time of national disintegration. Internal strife together with increasing luxury destroy unity of motive and force of action. In this particular instance the internal discord was between the military and the church. The king, instead of insisting upon leadership with a strong hand, strove to placate both parties. Cyrus, the Persian, had steadily added to his possessions and strength and we know that in 539 B. C. the city of Babylon was surrounded. The country about was inundated and made a marsh as Holland has been in later days under similar conditions, the territory enclosed by the waters being large enough to support the city.

The city was later captured and the state became a Persian province. That her ancient splendor was not entirely forgotten is proven in later attempts to win back her independence. But these struggles did not last and were ineffectual. Cyrus was wise enough to prove himself a liberal ruler; so much so that his government was a real relief to some of the minor cities from which were removed the oppression of the double authority of their own army and church. The southern part of the country unquestionably regarded him as a deliverer from their own ruler.

At this point a new epoch in the history of civilization opens and Persia enters to carry some of the benefits of the science and learning of Oriental Babylon over into Occidental Greece.

Persia

THERE were at the beginning of the Sixth century B. C. four principal nations known to history, the Egyptian, the later Babylonian, the Medean and the Lydian. These different empires in time became absorbed into the one great world empire of Persia and the dominion of the near East passed into the hands of Aryan peoples, who from that time to the present have been masters of the civilized world. Part of these Aryans had already entered India, settled upon the Indus river and became known as Hindus, but the first of the race to become real factors in the progress of the ancient world were the Medes and Persians. These people were closely related to each other but found homes in different regions. Both settled upon the western part of the great plateau of Iran between the Tigris and Indus rivers. The Medes chose the higher lands to the west and north and the Persians those further south near the shores of the Persian Gulf.

The Medes came earlier into prominence because they first threw off the yoke of the

Assyrian, to whom they had been subject, and founded their own empire. Though extensive in territory theirs was the shortest lived of all the great Asiatic monarchies and it is only significant for us because of the fact that it prepared the way for the greater empire of Persia. The Lydian empire covered the western part of Asia Minor from the Halys river almost to the Ægean Sea, on the coast of which had grown up a number of Greek cities.

Egypt, as you remember, had in the latter part of the Seventh century B. C. recovered its independence and occupied its original territory in the valley of the Nile, and the later Babylonian empire we have but just considered.

These countries were all merged into one by the Persians and under Darius, 521-484 B. C., the Persian empire was extended to the very boundary of Greece itself; Thrace, the Greek cities north of the Ægean Sea, and Macedonia, were compelled to yield to the supremacy of the great king. The subsequent history of Persia was closely related to that of Greece which had by this time developed a distinct civilization of its own and had become the center of a new world culture. Persia finally came into contact with the Greek states and was overthrown in 331 B. C. by Alexander the Great. In Persia then you first enter upon continuous history, the history of a race from which we are indirectly descended and in which as a consequence we are

primarily interested. This brief explanation would not lead us to expect interesting and vital tendencies in Perisian art as in countries where a necessity forced the inventing and producing of truly original forms. We shall here expect a gathering together of races and elements, a use of characteristics and tendencies shown by other and earlier peoples and a foreshadowing of the finer expressions that are to follow.

Persian art, we would expect from Persian social and political history, to represent a transitory phase in development and as such it holds a certain interest for the student of history but can never claim the attention or rouse the same sympathy as do the products of the first civilized peoples or of those that follow, in which are expressed higher ideals by minds more controlled by reason.

It is possible and to us seems very probable that we have not yet delved deep enough into things Persian to be able to positively state just how far she did develop her arts. While Egypt has been gone over carefully and excavation after excavation made, and while Babylonia is at present divulging secrets which the archæologist will soon make public, comparatively little effort has been made to unearth the most ancient of the Persian relics and to arrive at any certain conclusions regarding them. We know from Egyptian, Babylonian and Assyrian art what are some of the characteristics we may

expect to see in Persian arts, but in order to understand what original tendencies would naturally modify those conceptions we must enquire into the ideas and ideals which we find always expressed in the religion of a nation.

The foundation of Persian religion was the distinction between good and evil. They conceived of a god, lord of all good, therefore a god of light, and opposed to him a lord of evil and of darkness but above and higher than these two was a universal being who was wholly abstract and existed only as the source or generator of the lesser gods of good and evil. We can readily understand how such a principle of dualism influenced all Persian education and expression.

The Persian reverenced light as a symbol of truth, abhorred darkness, the sign of evil, and embodied these ideas in his work. Because we consider the Persian civilization as a bridging over from primitive to higher culture we feel privileged to take the space and time for the setting down of some of the facts concerning these people, which though repetitions of thought we already know, are not out of place in an outline of the development of man.

When the Persian considered that light and good were synonymous, and were opposed to darkness and evil which were also synonymous, he really implied that action and struggle are necessary to growth and that man's development must therefore

no longer depend upon the conforming to any set observances but must come through the conflict between light and darkness. He implied that light was to be desired, that it purified, individualized and vitalized, that it created beauty and at the same time showed all things as they really are and so he adored light and all the bodies which gave light and in time formulated the worship of the sun and fire. This doctrine was contained in the twenty-one books of the Zend-Avesta, attributed to Zoroaster, about 1000 B. C. The Persians saw darkness as opposed to light and believed it meant death and decay. They saw that struggle was man's purpose in life; it pervaded all their thought just as in India passivity ruled theirs.

Now just as soon as we find a people passing from phantasy to fact, we find the first real association of morality and religion, the first real necessity for truth between men. Just as light conceals nothing, so truth between man and man means justice, and justice implies a respect for the individuality of all men. So we see how, through the symbolizing of the conflict between light and darkness, the Persians were the first people to come to any real understanding of the individual will, its right and power of choice, which was a long stride forward in the development of nations and in freeing life from tradition. China, we will find, said men are equal as they conform to one pattern; India as they are able to attain

to nothingness; Persia, in that they have the power of choice and the power to act according to that choice. China was contented with the past. India cared nothing for the past or present and would become wholly passive. Persia recognized the power to change the undesirable and to create a new future and was eager to push forward.

It is here we find in spirit at least the dawn of the high social order and of the great artistic conceptions which could only have been attained through an understanding of individual freedom of choice, limited only by reason. We know that the Persians, unlike the Assyrians, conducted their wars with great humanity. The vanquished kings were honorably dealt with, the towns of enemies were left unmolested except where grave offenses and insurrections rendered punishment imperative. They welcomed members of conquered nations into their service, employed them as administrators or generals, made them grants of land and in so far as possible treated all conquered people alike.

When the mountain tribes of Persia emerged from their seclusion into the foreground of history and secured dominion in central Asia they had not, so far as we know, acquired any artistic knowledge. With this dominion they inherited the developed civilization and art of Mesopotamia and from beyond these geographical limits gathered many ideas which they were able to blend into a

new and semi-original whole. As builders and artists the fame of the Persians fell below that of the Babylonians who were their instructors in art no less than in science and letters. It was not so much that they did not produce works worthy of comparison with those of Babylon as it was that they were less original.

Persian architectural art displayed itself in two forms, the palace and the tomb. Temples were not unknown though most of the worship probably took place in the open air. We know almost nothing of the structure of their homes. The massive palace ruins of the new Pesepolis, near Istaker, have for centuries been the wonder of travelers. Like the Mesopotamians, the Persians placed their structures upon extensive terraces but in spite of the close relationship of the architecture of the two countries the ruins show a fundamental difference. We found walls and few columns in Assyria, here were columns and few dividing walls. We do not know where the Persian derived his idea of the column but he did make an improvement upon Assyrian architecture by doing away with dark, narrow rooms and corridors and developing a plan of building with much more freedom. This is quite consistent with his ruling idea that light created beauty and was in all ways desirable.

We can give little idea of the massiveness of their structures except by means of figures. One

Persepolis ruin stands upon a platform fifteen hundred feet long, and nine hundred and fifty feet wide. Some of the stones used are from forty-nine to fifty-five feet in length and from six to ten feet in breadth. This platform was composed of three distinct divisions, southern, northern and central, twenty-three, thirty-five and forty-five feet in height. Magnificent staircases led to and connected the terraces. Upon the terraces are the remains of many magnificent columns the capitals of which were arranged to support beams so that we conclude that the roofs of the buildings were of wood. We have nothing left of the walls of these particular ruins and can only surmise as to their arrangement but they were probably a series of hangings such as we read of in the book of Esther. This idea of a great summer palace with its beauties enhanced by the light the Persians loved, by glimpses of the blue sky and green fields and views of the distant mountains seen through rich hangings is not out of harmony with the ideas that we have gained of these people.

The entire face of the main staircase is covered with sculptures in low relief. There we see colossal Persian guardsmen armed with spears, swords and shields, others carrying bows and quivers of arrows. There are lions attacking and devouring bulls and single figures of bulls and lions. Along the edge of the parapet is a border of rosettes and great slabs of stone left unadorned, undoubtedly to

receive inscriptions commemorative of the founder of this huge structure, for one was completed and on it in the old Persian language we read that the builder was "Xerxes the Great King, the King of Kings, the Son of King Darius."

It was an important principle of the Persian religion that the body should not after death be allowed to mingle with or pollute any of the elements. Either wholly from a regard for this idea, or from the mere instinct to preserve as long as possible the lifeless clay, they entombed their kings in the following manner. The body was placed in a golden coffin with close fitting lid and deposited in a massive building erected to serve at once as tomb and monument, or in a chamber cut out of some great mass of solid rock at a considerable elevation. The entrance in either case was carefully sealed with blocks of stone. Inside the tomb with the coffin were placed a number of objects which lead us to think that the Persians had some idea of a future existence. There were cloaks and tunics, collars of gold set with gems, daggers, carpets, draperies and golden goblets. Generally the tomb was decorated with sculptures, and rarely with an inscription telling us the name and title of the one whose body was there enclosed.

There are but few remains of Persian sculpture extant and these consist almost entirely of basreliefs on the walls and terraces of palaces, the fronts

of rock-cut tombs and a number of intaglios cut upon gems. We possess no statues in the round, no modeled figures, no metal castings, no ivory or wood carvings, no pottery or examples of enamellings that we can with any certainty assign to the ancient Persian Empire.

The nearest approach to statuary that we find are the figures of colossal bulls placed to guard entrances. They are not unlike those of Assyria, being specimens of very high relief, carved in the round in front and on one side. There are two varieties of these figures, one representing the real animal, the other a combination of bull, eagle and man. They are like the Assyrians', massive and imposing and on the whole are in finer proportion. The legs, of which now there appear but four, are accurately drawn, the muscular development well portrayed and the pose is one of majesty. They indicate an appreciation of some of the best qualities of Assyrian art. A greater tendency toward decoration is found in the carving of the wings. The feathers are worked into graceful but unnatural curves such as we shall later see in the griffins of Greek sculpture.

We find representations of the king in combat with a lion, bull or fanciful monster, symbolizing the struggle between good and evil, between light and darkness; processions of courtiers, attendants, guards and tribute bearers; portrayals of monarchs

seated upon thrones, walking or employed in acts of worship; bulls and lions in combat or carved singly. Nowhere do we find the stories of their wars as in Assyria, but frequently the tribute from conquered tribes forms the subject of a relief.

Let us look at one of the representations of these symbolized struggles. We see the human figure dressed in the Median robe, represented in the act of killing the creature, which is always rampant and assails his antagonist with three feet while he stands upon the fourth. The lions and bulls have nothing remarkable about them but the monster presents strange and unusual combinations. It may have a griffin head, a feathered crest and neck, bird's wings, a scorpion's tail and legs terminating in the claws of an eagle. We see at once that the idea was borrowed from the Babylonians but the Persian fancy worked it out in its own way, adding and eliminating in such a manner as to give the form a peculiar character. Some of the human heads are ornamented with a diadem and you will notice that the hair and beard are not pictured as of such luxuriant growth as in the Assyrian sculptures and the face is distinguished from them by a longer and less prominent nose. The arms and legs are of more slender proportions and the whole outline less severe. The expression of great muscular power and of striking energy which many of the Assyrian sculptures portray is lost in Persia.

There is here an attempt, not remarkakbly successful, to picture the folds of the garment and the free fold of the cloth. You will see that the feet are flat upon the ground, showing that the Persian had not learned how to draw a figure with only the ball and toes of the foot touching the ground and with head thrown back in order to convey the idea of forward movement. In fact there is no suggestion of the ability to portray action such as we see especially evident in the Assyrian animal sculptures. The only vivid suggestion of action is shown in one or two swords we see half buried in the monster's body, the handles still held in the hands of his assailant.

The most accessible subjects for this art naturally were ceremonial representations where the action is reduced to a minimum. The promenade of a king with staff and lotus flower in his hand, followed by attendants, pictured one-third his size, who carry his sun shade and cool him with a fan of peacock feathers, can be made to tell its story and to serve as decoration in the stiff and almost lifeless manner that characterizes the work.

One historical scene only is known, a rock-cut relief. It pictures a king, followed by guardsmen, who stands with his foot and bow upon a victim lying upon the ground while a procession of nine prisoners approaches, hands tied behind them and bound one to another. This shows some artistic ability beyond that of most Persian reliefs but still

falls below like Assyrian sculpture. None of the sculptures of Persia show as great an independence or original tendency as the architectural forms.

The people of Mesopotamia were thrown upon their own resources and so looked to nature and to their religious beliefs for inspiration but the Persians, in the greater extent of their kingdom, instead of profiting by the study of nature, so necessary to true progress, depended upon forms and methods inherited from the Assyrians and the Egyptians and at a later date from the Greeks. They utterly sacrificed the possibility of originality and simplicity of style in this borrowing and mingling of manners of expression.

It is easy to understand how with such lifeless imitation the creative impulse languished and art expression became more and more limited until it at last reached the stage of merely ornamental work. Persian architecture more nearly fulfilled its aim of combining the useful and beautiful.

We have nothing left us of Persian painting and yet there is little doubt that a people to whom light and color meant so much must have added color to their decorative schemes. Then too, the Assyrians, their immediate teachers, had largely employed color both in reliefs and tiled pictures and the colored decorations so universal in Egypt must have helped to familiarize them with the use of color.

There is considerable merit in the Persian gem engravings, for which hard stones of several kinds were used, such as carnelian, onyx, rock crystal and sapphirine. The designs are in general of mythological character, but sometimes picture scenes of real life. They are for the most part executed with much skill and delicacy, the drawing is often good and even shows considerable spirit. Frequently forms of plants, flowers and palm trees are represented in a graceful and pleasing manner. The palm tree was a favorite subject with Persian artists, who delineated with remarkable success the feathery leaves, the pendant fruit, and the rough bark of the stem.

We know but little of Persian taste in furniture, pottery and personal adornment. The throne and footstool of the monarch are the only pieces of furniture represented in the sculptures and these are not in any way remarkable. Costliness of material seems to have been more prized than beauty of shape and variety of form appears to have been discouraged. The taste of the Persians in personal adornment was peculiarly simple and we find that as a race the Aryans never adopted the elaborate personal ornamentations of the Semites.

Ancient Persia was not celebrated for the production of any special fabrics. We know that they were more or less skilled in the arts of weaving and dyeing but none of their loom productions

carried Persian fame among foreign nations. They were soldiers, rulers and empire builders but did not win a position by the development of the sciences or mechanical arts. As long as fine linens from Egypt, carpets and rugs from Babylon, shawls from India, and numberless manufactured articles from Phœnicia poured into Persia as tributes, gifts or merchandise, it was needless for the natives to engage to any extent in industrial enterprise.

LET us now, after necessarily so brief a survey of the art of this great empire, try to bring together the several ideas we have gained and find, if possible, why Persia enters at all into the forward movement and artistic progress. Babylonia gave the most to Persia, the raised platform for structures, the staircase for ascent and decoration. Persia substituted stone for brick but the building principles remained the same, as did in a general way the subjects for decorations.

We see the Persians first sitting under the tutelage of the Babylonians, then returning from the valley of the Nile dazzled by the impression of the marvels of Memphis and Thebes and straightway copying some of those marvels. Then Greek genius made itself felt in both architecture and sculpture, for Asiatic Greece was a vassal of Persia from the time of Cyrus and remained such for over two centuries.

We cannot judge the art of Persia as we would primitive art, but as art lacking simplicity because acted upon by many and divergent influences and as a result made up of differing elements. It was not the spontaneous expression of the ideas and beliefs of a great people but was the last expression of the life of Central Asia. The inspiration was derived from types created by predecessors and yet the monuments were not entirely deficient in originality and were more than simple copies. The originality consisted in the observance of regularity, proportion and a certain nicety in combining the borrowed elements. The extraordinary size of the edifices and the luxury of ornamentation were secondary phases of this originality. The Persians always attempted to bring into unity the various tribes that they gathered into their empire. They strove to blend, not destroy, and even tolerated other religious ideas, and their art is but a reflection of their empire socially and politically.

When we realize the many sources from which their art was drawn and remember that their finest works were all produced within about two hundred years we cannot marvel that they failed to develop real inventive force. There was not time to recover from the spell that the splendors of other lands cast upon them and create a really national art but we find in their ideas of government and

religion the seed of higher things than had before been dreamed of in Oriental nations.

This then is what Persia did do; she regulated and set in order. The previous civilizations filled a blank space upon the wall with a sculptured story. She filled her blank spaces which needed ornamentation with the simplest form of decoration known, that of a repetition of one pattern, but that pattern was used with a sense of proportion and arrangement not seen in primitive work. There is in this fact the hint of an appreciation of real artistic design, a suggestion of beauty for its own sake.

When we give them credit for an understanding of life such as their religion suggests, we of course can mean that it was but a faint stirring of the ideas we now read into their beliefs and thoughts, nor can we believe that they were always fully conscious of the whole idea which their creations implied. The impulse that prompted them had its birth in reason, though as yet unconscious reason.

The great world empire of Persia fell after a brief time of glory. Her most obvious effort was to understand, and embody in an imperial way in her own culture, the civilization of other peoples, and the original tendencies she evidenced were so overshadowed and absorbed by Greece that we are too prone to overlook the fact that Persia played an important part in the history of the world's development.

The Hebrews

NO discussion of the civilization of the Western world can in any way be complete which does not bear in mind the influence exerted over it in the past and present by the Jews, Hebrews or Israelites, as they are variously called. This influence is so absolutely basic, so interwoven in the fabric of the present day, that there would have been no Western civilization as we know it, had it not been for the ancient Hebrews.

This influence though remote was continuous and powerful. Other ancient peoples contributed the beginnings of the sciences and arts but the contribution of the Jewish people was unique. Their origin is unknown, their chronology uncertain and the subject of apparently endless controversy. They were a pastoral, Semitic people. Under Joseph in approximately 1550 B. C. they migrated into Egypt and were assigned a portion of the land of Goshen in the Nile delta by one of the Shepherd kings. Some 300 years later they left Egypt under the leadership of Moses, one of the greatest figures humanity has ever known, whose Ten Commandments

were an immeasurable advance over any other rules of conduct which had been developed up to that time.

The later wanderings of the Children of Israel, the conquering of their Promised Land, their captivity in Babylon, the building of their capital and the fall of Jerusalem are historically unimportant were it not for the fact that during these many years of tribulations they developed a large literature, a part of which, our Bible, has had a greater influence upon the human race than all other influences combined.

This literature may be divided into three classes of books, religious, legal and narrative, and all have a close connection, because the civic and moral laws of the Hebrews were practically identical, while the narrative or historical works are practically a history of Jewish religious life and struggles. It was on the whole a literature of priests, for the priests were also the law givers.

Aaron and Moses were the first of these writers and law givers. The Torah, Moses' five books of law, was probably engraved on stone or metal tablets, but for many centuries the Torah and the Pentateuch, Talmud and Apocalyptic writings which succeeded it, were for the most part handed down from generation to generation by word of mouth, priests and students having a capacity for memorizing that would appal the modern mind.

From the Torah was developed the Pentateuch and from that the Talmud, showing much Assyro and Babylonian influence, and later a much greater influence from Greco-Roman contact. Because of the migratory character of the race their literature was not only influenced by the people with whom they lived, but its influence spread into the lives and literature of all other peoples.

The Apocalyptic or narrative literature was in the nature of revelations given direct to the prophets by God or through his angels. The meaning of the word apocalypse is revelation. Much of the Apocalyptic literature is to be found in our own Bible as well as in the Hebrew Bible and in the works of Flavius Josephus, one of the greatest of the Hebrew leaders and writers. Josephus was born about 37-38 A. D. and died about 100 A. D. He defended Galilee in the great Jewish war against the Romans and introduced the Sanhedrin form of government, in which seven men were chosen to represent each city in the government of the whole.

Apocalyptic literature dates from the time of the Maccabean war to the Middle Ages. It started in Palestine, made its way to Hellenistic Alexandria and was translated by the Greeks and made to conform to their Sybil mythology. The Christians took for their own much Apocalyptic literature, using it with very few changes. Perhaps the first of these books is the Book of Daniel which dates to 200 B. C.,

though some authorities say that part of the Book of Enoch antedates the book of Daniel. Throughout the entire history of the Hebraic literature the consistency of ideas maintained is truly marvelous.

Education in the only thing which seemed to interest the Jews—law, religion and literature—began at a very early date. Talmud Torah schools for boys in which law and literature were taught were early established. At first the religious training was received at home. Girls were not sent to these schools. They received education in a limited form at home, but while women were protected by the Hebrew laws they were not considered in any sense the equals of men.

Translations of the cuneiform inscriptions already made furnish ample proof of the general trustworthiness of Hebraic history. The writings of the Hebrews acquire fresh force, significance and value by comparison and contrast with the records of the great empires and peoples which so powerfully affected the fortunes of Israel.

The Assyrians are not particularly alluded to in the Old Testament until their predatory expeditions west of the Euphrates brought them into contact with the Jews. From that point on there is frequent mention of their monarch until the account of the captivity. The books of Judith and Esther are characteristically descriptive of this period.

The Hebrew contributed nothing toward the development of the arts and left no monuments. They produced no sculpture or painting. This was partly due to their abhorrence of anything approaching idolatry—their aversion to graven images. Almost all sculpture at this time had some religious significance and their religious belief would not permit statues in temples nor on tombs. Phœnician influence in Canaan did, however, develop in them the making of pottery and a certain amount of architecture. Both of these, however, borrowed so much from the character of Phœnician workmen that they cannot be considered a truly national development. From the Phœnicians too they learned to work in metals and many of them became gold and silver smiths. They learned to overlay figures and vessels of wood with a thin veneer of gold or silver. The golden calf of Aaron was doubtless of this character. They also learned to carve ivory and wood, and this art was used in the making of the signet rings, used as a convincing badge of authority by all in power. Some of these rings are still in existence and are so distinctly Hebraic in character that they may be taken as authentic examples of Hebrew art.

The whole history of the Hebrews is a story of their struggle to maintain their own religious beliefs and ideals amid alien peoples and surroundings. This struggle not only developed their own lasting literature but it developed a great volume of

literature among the peoples that were fighting against them—first the pagan and later the Christian nations.

They formulated a considerable list of personal and social laws, all of which were incorporated into their literature, but the thing that made them a peculiar people in ancient times was their theocracy.

It was the very great privilege of the ancient Jews to be the only people who believed in a single God, pure monotheism existed only among the Jews. There were elements of truth and beauty in most of the pagan religions but they failed in application to everyday life and all were encumbered with a priestcraft that was an imposition upon the people.

Philosophy later took the place of pagan religion among the more enlightened Greeks and Romans but to the Jews belongs the honor of being first associated with the purest conception of God that has come to the mind of man. The Jewish prophets were the greatest religious teachers known to history, and when the time in world development was ripe for a still greater spiritual leader Jesus Christ came. His teachings and his apostles furnished material and made room for a new civilization whose ideal of attainment is the spirit of the Sermon on the Mount and the Golden Rule.

Phœnicia

THERE remains but one nation of the ancient Asiatic civilization to be mentioned. Phœnicia was the Greek name for the Land of Canaan. In its restricted sense it was applied to the bit of land a few miles wide and only one hundred and fifty miles long which lies north of Palestine and west of Mount Lebanon and is bounded on the west by the sea.

The religion of the Phœnicians was a corruption of that of Assyria. The god Baal and the goddess Ashera, representing birth, life and the kindly forces of nature, were opposed by Moloch and the maiden goddess Astarte, the powers of war and destruction, to appease both of whom human sacrifices were offered.

The history of the country centered about that of three cities; Sidon whose greatest importance was about 1300 B. C., Tyre which had its period of greatest prosperity under King Hiram, 1001–967 B. C., and Carthage, a Phœnician colony on the north coast of Africa which reached its greatest glory 850 B. C.

The Phœnicians manufactured dyes and glass, did weaving, mining and metal work and were great boat builders and traders. Shut off from the east and south by deserts and powerful enemies, they took to the sea and became fearless and tireless explorers, they carried their trade along the northern and southern shores of the Mediterranean sea, through the straits of Gibraltar to the west coast of Africa and on the north around the Spanish peninsula to the coast of Gaul, from whence they obtained tin in trade with the Britons.

They were a practical, trading people and as such would need some means of written communication much simpler than any in use when they entered into world importance. They are credited with taking what they needed from the various systems then in use and making a short and simple system of signs. Their position as middle men and travelers gave their system of writing a spread possible to no other and so their system of writing became the basis of all other European scripts. This was their greatest service to the future.

Recent excavations in the island of Crete have brought to light new facts which have upset many statements which were up to that time accepted. Previous to these excavations it was supposed that the Greeks were entirely indebted to the Phœnicians for their alphabet. We now know that the Cretans used a fine script, inscribed on clay

tablets. This script has not yet been translated but it was syllabic and probably in part alphabetic and obviously of a higher level than either the Egyptian hieroglyphics or the Assyrian cuneiforms and antedated the Phœnician writing by five centuries. It would follow that the Phœnicians did not devise an alphabet but combined and modified material already in existence, adding some new elements.

Neither nature nor art advances by great leaps. So the present alphabet is the result of long and complex development. All primitive races have had systems of numerals, for counting came first. The fingers were first undoubtedly used for counting but small stones were also early used as counters and were for a long time retained, hence the word "calculate" from the Latin calculus, a pebble. Notches on a stick and knots on a string were also used. After numerals came picture writing, hieroglyphics and symbolic characters. The Chinese have never advanced beyond the latter, of which they are said to have more than one hundred thousand combinations.

Marks indicating sounds, or phonetic character, would come next in order. These true alphabets were at first very limited. The Pelasgian alphabet, which was derived from the Phœnician and was the parent of the Greek and Roman, had only twelve or thirteen letters or signs. The present alphabet with its combinations of vowels, consonants

and diphthongs is capable of an almost infinite variety of combinations and is one of the finest examples of human development.

THE present age is a period of tremendous change, pregnant for the future. It is too, a time of resurrection of ancient civilizations.

It is unwise to make either bald or definite statements concerning these bygone civilizations as the constant additions to the facts at hand force everchanging conclusions. Some of these new facts confirm conclusions already arrived at, others necessitate an entire revision of previous ideas. We are to-day privileged to either look about us or look back and in both cases see history in the making.

THE END.